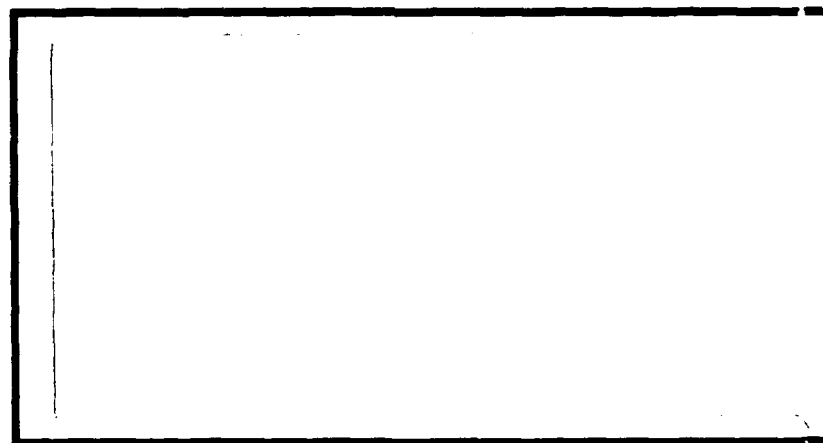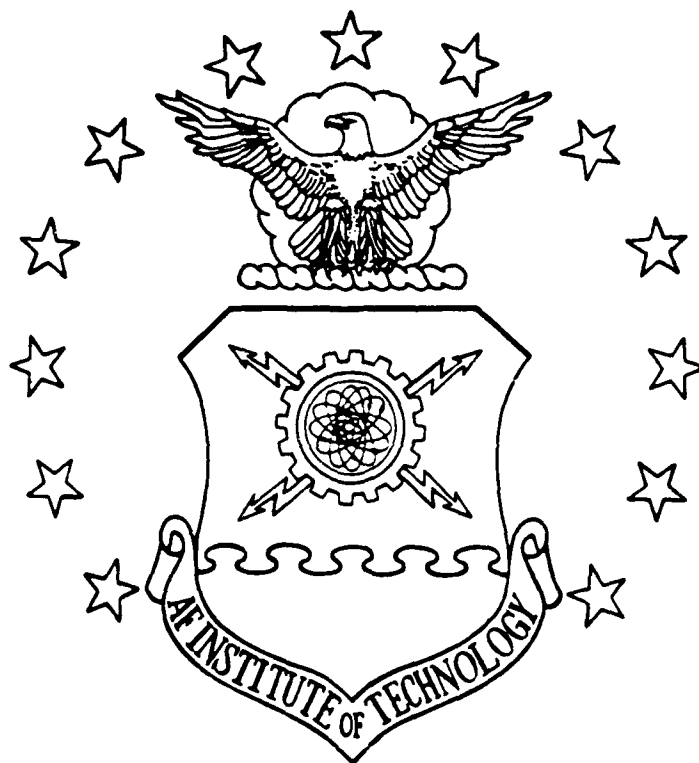AD-A201 493

DEPARTMENT OF THE AIR FORCE

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AFIT/GSM/LSR/88S-14

AN INVESTIGATION INTO THE PREDICTORS
OF EMPLOYMENT INTENTIONS FOR
DEPARTMENT OF DEFENSE EMPLOYEES

THESIS

Terry D. Kline
Captain, USAF

AFIT/GSM/LSR/88S-14

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INTENTIONS FOR DEPARTMENT OF DEFENSE EMPLOYEES

THESIS

Presented to the Faculty of the School of Systems and

Logistics of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the

Requirements for the Degree of

Master of Science in Systems Management

Terry D. Kline, B.S., M.B.A.

Captain, USAF

September 1988

Acknowledgements

First, I wish to thank my advisor, Dr. Robert P. Steel, for the freedom and guidance that allowed me to accomplish my own thesis. I am also indebted to Dr. Steel for the use of his data which made this thesis possible. Finally and most importantly, I thank my wife Sheila for her support and understanding during this hectic last year. I look forward to establishing a more normal life with you.

<div align="right">Terry D. Kline</div>

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Abstract

The United States Department of Defense has at least three reasons to be interested in retaining quality personnel. First, employee turnover results in increased costs associated with hiring and training new personnel. Second, the government must continue to compete with the private sector for quality people. Finally, the Department of Defense will be competing for a declining number of people entering the work-force in the next decade as a result of the declining birth rate. In order to hold costs down and remain competitive with the private sector, the Department of Defense needs to thoroughly understand employment turnover.

The objectives of this research were to identify the predictors of employment turnover and to quantify each predictor's contribution to the overall employment intentions of employees in the Department of Defense. Additionally, a turnover model was tested that proposed using an employee's job satisfaction and organizational commitment as intervening variables between an employee's intention to quit and other variables related to the employee's individual and organizational characteristics.

This study's sample was obtained from two survey questionnaires administered to employees of a Defense Logistics Agency of the Department of Defense. The two samples of 1502 and 1221 respondents were used to test eight hypotheses testing the applicability of the proposed

turnover model across the cross-sectional samples and across a longitudinal sample of 565 responses extracted from the two surveys.

The results found several significant predictors of an employee's intent to quit including intrinsic job satisfaction, organizational commitment, performance obstacles, career expectations, performance, situational constraints, extrinsic job satisfaction, and sex. Overall, the proposed turnover model was able to predict up to 18.4% of the total variance in an employee's intent to quit.

The results of this study may prove to be useful for the Department of Defense in designing potential employee retention programs.

AN INVESTIGATION INTO THE PREDICTORS OF EMPLOYMENT INTENTIONS FOR DEPARTMENT OF DEFENSE EMPLOYEES

I. Introduction

In recent years, the United States Department of Defense has taken initiatives to control the increasing costs associated with national defense. A large portion of the total annual defense budget is spent on the manpower required to operate the extensive defense structure. In fiscal year 1986, the Department of Defense spent approximately $117 billion, or 42 percent of the defense budget, on manpower needs (Hogan, 1987). Civilians accounted for approximately 25 percent of the 4.4 million people employed by the Department of Defense in 1986 (Hogan, 1987). In order to hold future costs down, manpower funds must be spent as efficiently as possible (Cox, 1986; Hogan, 1987).

It is the relative cost of recruiting, training, and retaining "an efficient mix of qualified personnel" that is important (Hogan, 1987, p. 9). This statement refers to the trade-off between the costs of retaining quality personnel versus the costs of hiring and training new employees. Although some turnover of employees is desirable, high

employee turnover results in excessive costs associated with the hiring and training of new employees (Mobley, 1982).

Justification For Study

Chapman B. Cox (Assistant Secretary of Defense, Force Management and Personnel) stated that there is a "need to ensure that we have incentives to recruit and retain each component of the total defense force" (Cox, 1986, p. 32). Mr. Cox claims that defense agencies "receive very little recognition but are essential to the successful accomplishment of the Department of Defense mission" (Cox, 1986, p. 31). One of these agencies is the Defense Logistics Agency which accounts for the greatest percentage of new Department of Defense employees hired in 1986 (Cox, 1986). Most of the new hires were in the areas of contract administration and quality assurance (Cox, 1986). Overall, thirty-five percent of the civilians employed by the Department of Defense work in central logistics functions (Cox, 1986).

Mr. Cox believes that concern for the quality of life of Department of Defense employees pays off in retention, increased morale, and productivity (Cox, 1986). There has been much research done in the area of retention and employee turnover; however, little if any research has been done to specifically investigate the variables which influence the decisions of employees of the Defense Logistics Agency to remain in or to leave Federal Service.

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Background

For the purpose of this research, employee turnover
will be defined as "the cessation of membership in an
organization by an individual who received monetary
compensation from the organization" (Mobley, 1982, p. 10).
The term "organization" as used in this definition refers to
the United States Federal Government.

There are many variables which effect employee
turnover. The variables which show relationship to employee
turnover can be classified as labor market variables,
organizational variables, individual variables, and
integrative variables (Mobley, 1982). Table I reproduces
Mobley's (1982, p. 114) analysis of the possible causes and
correlates of employee turnover. Mobley (1982) classified
predictors of turnover to reflect whether the research
literature had yielded "consistent", "moderate," or
"inconclusive" results. These classifications were based on
Mobley's evaluation of the "quantity, quality, and
interpretability of published research" (Mobley, 1982, p.
114). However, Mobley argues that any of the variables
listed in Table I may serve as potential candidates for study
of employment turnover (Mobley, 1982). The variables with
"consistent" and "moderate" linkages to turnover may be
expected to give better results than the "inconclusive"
variables when generalized over various populations (Mobley,
1982, p. 114).

Table I

Mobley's Interpretive Summary of Research on Causes and

Correlates of Turnover

	Consistent	Moderate	Inconclusive
Labor Market Variables	Level of unemployment		Inflation
Organizational Variables	Pay Levels	Supervisory style Work-unit size Routinization, task repetitiveness Autonomy and responsibility Centralization Integration Communication	Type of industry Organization size

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Table I (continued)

	Consistent	Moderate	Inconclusive

Individual Variables	Age
	Tenure
	Satisfaction with job content
		Source of referral
		Family responsibility
		Interests
		Aptitude and ability
		Satisfaction with
		  -pay
		  -promotion
		  -coworkers
		  -supervisors
		  -work conditions
		Expectancy of finding an alternative
			Personality
			Sex
			Education
			Professionalism
			Performance
			Career expectations
			Absenteeism

Integrative Variables	Overall satisfaction Behaviorial intentions to quit Organizational commitment		Stress

[Source: Mobley, W.H. (1982). *Employee turnover: Causes, consequences, and control.* Reading, MA: Addison Wesley, pp. 112-113]

Mobley's (1977) model of turnover illustrates the employee turnover process as a series of steps including evaluation of an existing job, experienced job satisfaction / dissatisfaction, thinking of quitting, intention to search for alternatives, evaluation of alternatives, intention to quit, and finally actually quitting. A significant component of Mobley's model of employee turnover is intention to quit or stay (Mobley, 1982; Steel & Ovalle, 1984a). In Mobley's model, formulation of an employee's intention to quit is regarded as the immediate decision step preceding actually quitting (Mobley, 1982). Steel and Ovalle (1984a) conducted an extensive meta-analysis of existing studies to estimate the relationship between behavioral intentions and employee turnover. A meta-analysis is a statistical procedure used to compile and summarize results of many studies. Steel and Ovalle's meta-analysis showed that behavioral intentions were related to employee turnover with a corrected "weighted average correlation of .50" (Steel & Ovalle, 1984a, p. 673). They also found that intentions were the single best predictors of turnover behavior.

Steel and Ovalle (1984a) also found that the strength of correlation between employee turnover and various predictor variables was a function of the "length of time between procurement of predictor and criterion data" (Steel & Ovalle, 1984a, p. 682). Besides evaluating predictors of intention to quit, effects of the time lag between predictor

and criterion measurement will also be investigated in the current study.

Problem Statement

The origins of employee decisions to leave Federal Service must be identified.

Research Objectives

The United States Department of Defense has at least three reasons to be interested in retaining quality personnel. First, employee turnover results in increased costs associated with hiring and training new personnel. Second, the government must continue to compete with the private sector for quality people. Finally, the Department of Defense will be competing for a declining number of people entering the work-force in the next decade as a result of the declining birth rate. In order to hold costs down and remain competitive with the private sector, the Department of Defense needs to thoroughly understand employment turnover.

The objectives of this research will be to identify the predictors of employment turnover and to quantify each predictor's contribution to the overall employment intentions of employees in the Department of Defense.

Scope and Limitations

This research will be limited to the study of one division of the Defense Logistics Agency of the Department of Defense.

The following limitations apply to this research:

a) The influence of the labor market on employment intentions will not be addressed in this study.

b) Because this study is using an existing data base, only the variables contained in the data base will be available for analysis.

c) Employment intentions will be used as a surrogate criterion in lieu of measures of actual turnover.

The following chapter presents a review of the relevant literature and presents the proposed research hypotheses.

II. Literature Review

This literature review is organized into three sections.
The first section includes a review of several variables
related to turnover. The second section summarizes turnover
models relevant to this study. The last section presents the
hypotheses of this study.

Research on Predictors of Turnover

As reproduced in Table I, Mobley classified variables
which show relationship to employee turnover into four
categories -- labor market variables, organizational
variables, individual variables, and integrative variables
(Mobley, 1982; p. 114). Labor market variables are those
variables which relate to the availability of jobs and the
labor supply. Organizational variables concentrate on
"categorical, structural, and descriptive characteristics of
organizations" (Mobley, 1982, p. 89). Individual variables
include demographic factors, personal factors, and individual
values and perceptions (Mobley, 1982). Integrative variables
attempt to summarize the effect of several variables.
Examples of the four categories of variables are summarized
in Table I.

Organizational Variables. This study focuses on the
following organizational variables.

Job performance constraints. The literature on the relationship between job performance constraints and turnover is limited. Peters, O'Connor, and Eulberg (1985) summarize only two studies which have investigated the relationship between situational constraints and a person's withdrawal plans. In one study, constraints explained 1 percent of the variance in a turnover measure (O'Connor, Peters, Pooyan, Weekly, Frank, & Erenkrantz, 1984). The sample was comprised of 1450 convenience store managers drawn from three levels of management (O'Connor et al., 1984). In the second study, O'Connor, Peters, Eulberg, and Watson (1984a) found that situational constraints influenced thoughts about quitting but not intentions to quit. Both studies suggest that there may be only a weak positive relationship between situational constraints and employee withdrawal plans (Peters et al., 1985).

In an additional study, Steel and Mento (in press) studied the relationship between situational constraints and intention to quit. The sample consisted of 274 military and civilian employees of a United States Air Force civil engineering organization (Steel & Mento, in press). Steel and Mento (in press) report correlation coefficients relating situational constraints to intent to quit of .08 and -.14 for the military and civilian samples, respectively. Additional analysis indicated that the relationship between intent to quit and situational constraints was curvilinear.

Steel and Mento (in press) quantified the curvilinear relationship between intent to quit and situational constraints by calculating correlation ratios (eta coefficients) of .39 and .44 for the military and civilian samples, respectively.

   Participation in decision making. The literature available relating turnover or intentions to quit to participation in decision making is scarce. Nicholson, Wall, and Lischerson (1977) found that a worker's propensity to leave was negatively related to his or her influence over the decision making process. Their sample consisted of 95 male steel workers. Various aspects of both existing and desired decision-making influence were measured (Nicholson et al., 1977). Nicholson, Wall, and Lischerson (1977) determined that desired participation had a stronger association with propensity to leave than did existing participation. The multiple correlations relating propensity to leave to existing participation and desired participation were .38 and .47, respectively (Nicholson et al., 1977).

   Price and Mueller (1981) reported a zero-order correlation between participation and turnover of -.04. In addition, the reported zero-order correlation between participation and intent to stay was .15 (Price & Mueller, 1981). The study sampled 1091 registered nurses in an attempt to develop and test a causal model of employee turnover (Price & Mueller, 1981). In the path analysis

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performed, participation's only effect on turnover was indirect via its effect on job satisfaction and intent to stay (Price & Mueller, 1981). The reported path coefficient (standardized partial regression coefficient) relating participation to turnover via job satisfaction and intent to stay was -.01 (Price & Mueller, 1981).

Organizational communication climate. Price (1977) hypothesized that higher levels of both formal and informal communication in an organization will contribute to lower turnover. In response to Price's hypothesis, Mobley stated that the relative importance of the relationship between organizational communication climate and turnover "has not been adequately researched" (Mobley, 1982, p. 95). However, in past studies reviewed by Mobley (1982), an organization's communication level has shown moderate correlation to employee turnover.

Job feedback. Walsh, Ashford, and Hill (1985) focused on feedback obstruction as a determinant of turnover intentions. They investigated both obstruction of supervisor feedback and obstruction of organizational feedback. Zero-order correlation coefficients were reported linking both types of feedback obstruction to turnover intent. The correlations relating obstruction of supervisor feedback and obstruction of organizational feedback to turnover intent were .56 ($p < .001$) and .18 ($p < .05$), respectively (Walsh et al., 1985).

Supervisory style. Mobley (1982, p. 95) noted that "Several studies have explored the aggregate relationship between supervisory consideration (people orientation) and supervisory initiating structure (task orientation)" as both relate to employee turnover. The effects of leader initiating structure and leader consideration on voluntary termination were investigated by Sheridan and Vrendenburgh (1978) using a sample of 216 nurses. Sheridan and Vrendenburgh reported a positive relationship between initiating structure and termination, while leader consideration showed an inverse relationship with termination. In a study sampling 48 systems analysts and computer programmers, Graen, Liden, and Hoel (1982) determined that average leadership style did not significantly enhance prediction of employee turnover. Ferris (1985) replicated Graen, Liden, and Hoel's (1982) study using a sample of 68 nurses. He also found that average leadership style had little effect on actual turnover (Ferris, 1985). Using path analysis methods, Michaels and Spector (1982) showed that leadership consideration significantly effected intention to quit and turnover through two antecedents of intention to quit -- job satisfaction and organizational commitment.

Individual Variables. This study addresses the following individual variables.

Age. The relationship between age and turnover is well established in the current literature (Arnold & Feldman, 1982; Bluedorn, 1982; Cotton & Tuttle, 1986; Mobley, 1982; Mobley, Horner, Hollingsworth, 1978; Price, 1977; Price & Mueller, 1981). Reviewers of this literature report a consistent negative relationship between age and turnover -- younger employees have a higher probability of leaving (Mobley, 1982).

Tenure. Tenure relates to turnover in the same manner as does age (Mobley, 1982). In a literature review investigating various correlates of turnover, Cotton and Tuttle (1986) summarized 22 articles relating tenure to turnover. In 15 of the 22 studies, tenure had a significant negative relationship with turnover (Cotton & Tuttle, 1986). In the remaining 7 studies tenure bore no significant relationship with turnover (Cotton & Tuttle, 1986).

Sex. Research on the relationship between sex and turnover has been inconclusive (Price, 1977; Mobley, Griffeth, Hand, & Meglino, 1979). Mobley (1982) hypothesized that gender acts on turnover indirectly through other variables. Other studies indicate that women show higher turnover rates than men (Arnold & Feldman, 1982; Cotton & Tuttle, 1986; Shorey, 1983). Shorey concluded that higher quit rates for women are due to the predominately lower salaries that women receive in the labor market (Shorey, 1983).

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Education level. The relationship between
education level and turnover is neither strong nor consistent
(Mobley, 1982). The use of samples with little variance in
education level often serves to limit the utility of
education level as a predictor of turnover (Mobley et al.,
1979). Cotton and Tuttle (1986) report that out of 37
studies examining the effect of education level on turnover,
12 studies observed significant positive correlation between
education and turnover. The remaining 25 studies obtained
nonsignificant or inconclusive results (Cotton & Tuttle,
1986).

Performance. Mobley characterized the research on
performance - turnover relationships as inconclusive (Mobley,
1982). There is a clear need for further research to
investigate the relationship between performance and turnover
(Mobley, 1982). Cotton and Tuttle (1986) report that out of
five studies reviewed, four indicated that a significant
negative relationship exists between performance and
turnover. An additional study by Martin, Price, and Mueller
(1981) examined the relationship between performance and
turnover for 162 female registered nurses. They found a
correlation of .13 suggesting that better performers were
more likely to leave. However, t-tests testing the
hypothesis that better performers were more likely to leave
was only significant at the .10 level. A recent study by
Wells and Muchinsky (1985) disagreed with the findings of

Martin et al. (1981). Focusing on a sample of 420 credit
managers, Wells and Muchinsky (1985) found that higher
performers were more likely to stay than lower performers.

Career expectations. Even though a person may be
dissatisfied with his or her current job, he or she may
decide to remain in an organization because of expectations
about future satisfaction, position, or salary (Mobley et
al., 1979). Cotton and Tuttle (1986) reviewed 15 articles
relating met expectations to turnover. In 12 of the 15
articles, met expectations had a significant negative
relationship with turnover (Cotton & Tuttle, 1986).

Organizational level. Organizational level can be
decomposed into two components -- pay and status level. In
any one sample, it would be difficult to differentiate
between pay and status level simultaneously because there is
a strong correlation between both measures. "Researchers
have established that there is a strong relationship between
pay levels and turnover rates" (Mobley, 1982). Higher pay
levels correlate with lower turnover (Mobley, 1982).
Supervisory level has been used to measure status level;
however, no significant relationship to turnover was found
(Michaels & Spector, 1982).

Integrative Variables. Mobley addressed several
additional predictors of turnover which "integrate individual
differences, perceptions of various aspects of the
organization, and/or perceptions of the external environment"

(Mobley, 1982, p. 102). Integrative variables which show a consistent relationship to turnover include overall job satisfaction, organizational commitment, and behaviorial intentions to quit (Mobley, 1982).

Job satisfaction. "There is undoubtedly a consistent negative relationship between job satisfaction and turnover" (Mobley, 1982, p. 102). Mobley cites seven literature reviews completed prior to 1980 which report that lower job satisfaction is correlated with higher turnover rates (Mobley, 1982). The reported correlation coefficients relating job satisfaction to turnover were seldom "stronger than -.40" (Mobley, 1982, p. 102). Therefore, Mobley (1982) concluded that other variables must be used in conjunction with overall job satisfaction to predict turnover. Cotton and Tuttle's (1986) review also notes a consistent negative relationship between overall job satisfaction and turnover. Of 28 articles reviewed by Cotton and Tuttle, 21 reported a significant negative correlation between overall job satisfaction and turnover. Another literature review by Steel and Ovalle (1984a) employed meta-analysis techniques to summarize the strength of relationship between various correlates of turnover. Based on a sample of 12 studies, Steel and Ovalle (1984a) reported a weighted average correlation coefficient of .28 for the relationship between overall job satisfaction and turnover. Similarly, other studies report significant correlation between individual

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facets of job satisfaction and turnover (Mobley, 1982; Steel
& Ovalle, 1984a; Taylor & Weiss, 1972). The Steel and Ovalle
meta-analysis observed a higher correlation between turnover
and work satisfaction (r = .31) than between turnover and
overall job satisfaction (r = .28). Taylor and Weiss (1972)
used the Minnesota Satisfaction Questionnaire to measure
various facets of job satisfaction for the purpose of
predicting turnover. The Minnesota Satisfaction
Questionnaire can be used to measure both intrinsic and
extrinsic aspects of job satisfaction (Weiss, Dawis, England,
& Lofquist, 1967). Intrinsic job satisfaction measures
satisfaction with features of the work itself. Extrinsic job
satisfaction refers to satisfaction with the context and/or
the environment of the job. Taylor and Weiss (1972) found
that intrinsic facets of job satisfaction were better
turnover predictors. Likewise, Maimon and Ronen (1978)
reported that intrinsic satisfiers are better than extrinsic
facets of satisfaction in predicting turnover.

     <u>Organizational commitment</u>. Organizational
commitment has been found to be a better predictor of
turnover than has overall job satisfaction (Saal & Knight,
1988; Porter, Steers, Mowday, & Boulian, 1974).

> Organizational commitment is defined as the relative
> strength of an individual's identification with, and
> involvement in, a particular organization. It is
> characterized by (1) a strong belief in and acceptance
> of the organization's goals and values; (2) a
> willingness to exert considerable effort on behalf of
> the organization; and (3) a strong desire to maintain

membership in the organization (Saal & Knight, 1988, p. 317).

Saal and Knight (1988) suggest that commitment is a better predictor of turnover because organizational commitment develops over a period of time, whereas job satisfaction can vary depending on day-to-day events. Past literature reviews report a consistent relationship between organizational commitment and turnover (Cotton & Tuttle, 1986; Mobley et al., 1979; Steel & Ovalle, 1984a). Steel and Ovalle's (1984a) meta-analysis reported a weighted mean correlation coefficient of .38 between organizational commitment and turnover. The mean correlation was calculated over 9 studies. Porter, Crampon, and Smith (1976) used a longitudinal design to show that organizational commitment declines prior to termination. They began their study with a sample of 212 management trainees and administered survey questionnaires 8 times over a period of 15 months. Steers (1977) investigated the relationship between organizational commitment and intent to remain using two samples of 382 hospital employees and 119 scientists and engineers. The commitment - intent to remain correlations were .31 (p < .001) for the hospital employees and .38 (p < .001) for the scientists and engineers (Steers, 1977).

Intention to quit. "Empirically, behavioral intention to quit-stay measures appear to be among the best individual-level predictors of turnover" (Mobley, 1982, p. 107). Mobley strongly recommends the use of intentions to

quit as a forecasting tool for anticipating actual levels of turnover (Mobley, 1982). Steel and Ovalle (1984a) reviewed the literature using intentions to quit as predictors of employee turnover. Their meta-analysis yielded a mean correlation coefficient of .50 between behavioral intentions and turnover (Steel & Ovalle, 1984a).

Turnover Models

The literature studying turnover is voluminous. The variables discussed in the first part of this review represent some of the key variables which have been linked to turnover. The emphasis of turnover research in the past has concentrated on searching for predictors of turnover (Cotton & Tuttle, 1986; Mobley, 1982). However, turnover scholars are calling for more theory-guided research (Cotton & Tuttle, 1986; Mobley, 1982). To be able to gain additional insight into the turnover process, more research is needed to test potential intermediate linkages between the variables known to be linked to turnover (Cotton & Tuttle, 1986). Those variables which show especially consistent and/or strong relationships with turnover should be prime candidates for turnover models. The current literature already shows that the trend in turnover research is toward the study of potential turnover models (Arnold & Feldman, 1982; Bluedorn, 1982; Michaels & Spector, 1982; Mobley et al., 1978; Price & Mueller, 1981). Three classic models of the turnover process are the March and Simon (1958) "Decision to Participate

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Model", Price's (1977) Model of Turnover, and the Mobley

(1977) Intermediate Linkages Model.

The March and Simon Model. March and Simon (1958)

presented one of the first integrative models which attempted

to explain the turnover process. The March and Simon

"Decision to Participate Model" includes two major components

which contribute directly to turnover -- perceived

desirability of movement and perceived ease of movement. In

this model, turnover is influenced indirectly by both job

satisfaction and the perceived possibility of

intraorganizational transfer through a moderator, perceived

desirability of movement. Similarly, the perceived number of

extraorganizational alternatives indirectly influences

turnover through the moderator, perceived ease of movement

(March & Simon, 1958).

Price's Model. As presented in Figure 1, the Price

Model of Turnover contains two intervening variables which

influence turnover -- satisfaction with membership in the

organization and opportunity for alternative jobs (Price,

1977).

> Price defines the primary determinants of turnover as:
> pay levels; integration (extent of participation in
> primary or quasi-primary relationships); instrumental
> communication (directly related to role performance);
> formal communication (officially transmitted); and
> centralization (degree to which power is centralized)
> (Mobley, 1982, pp. 120-121).

All five determinants except centralization are positively

related to turnover (Price, 1977). In the Price Model,
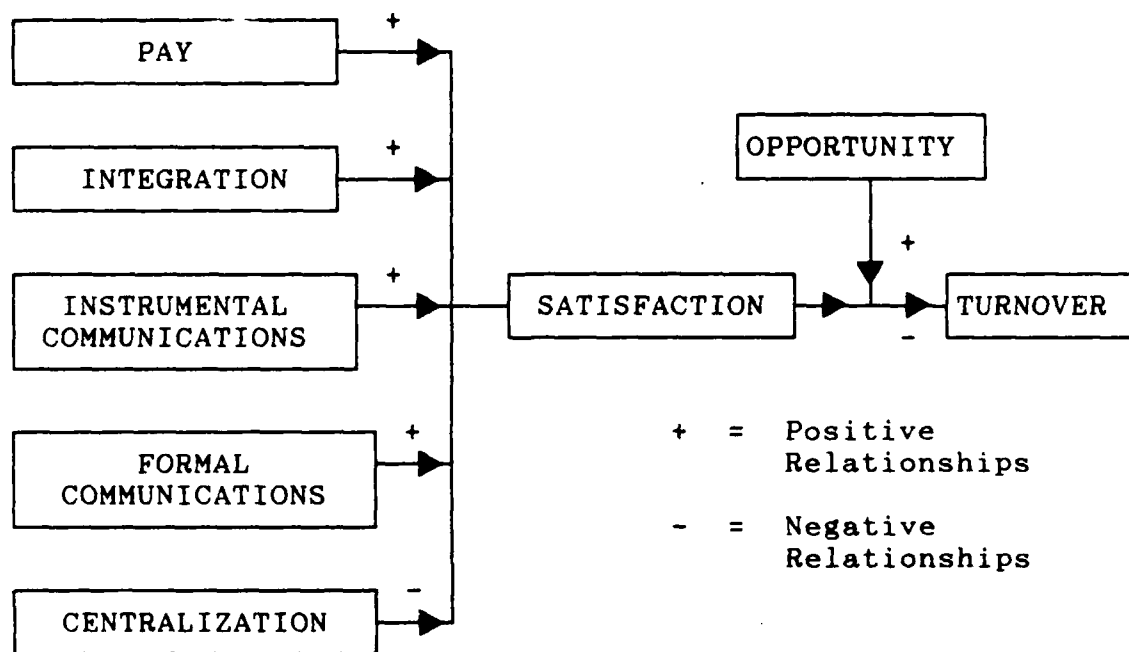
Figure 1

Price's Model of Turnover

[Source: Mòbley, W. H. (1982). *Employee turnover:*

causes, consequences, and control.

Reading, MA: Addison Wesley, p. 120]

satisfaction has a negative impact on turnover. However, opportunity for alternatives is necessary before actual turnover is predicted to occur.

Mobley's model. Mobley's (1977) model of turnover represents an attempt to determine the underlying relationships between the job satisfaction - turnover link (Mobley, 1982). Mobley's goal was to model both the cognitive and behaviorial processes which might account for the job satisfaction - turnover relationship (Mobley, 1982). The major steps in Mobley's model are illustrated in Figure 2. Although Figure 2 represents the major steps in the Mobley's model, the figure does not show the feedback loops in the original Mobley model. The feedback loops hypothesized by Mobley are impossible to research using cross-sectional research designs. Mobley recommends increased use of longitudinal designs so that feedback mechanisms may be studied (Mobley, 1982).

Research Hypotheses

Recent literature advocates the use of turnover modeling so that the turnover process can be better understood (Cotton & Tuttle, 1986; Mobley, 1982). Logical choices for intervening variables to include in turnover models are the integrative variables discussed previously. A common element among models in recent studies is the presence of intention to quit as the immediate precursor of actual turnover (Arnold & Feldman, 1982; Bluedorn, 1982; Michaels & Spector, 1982;
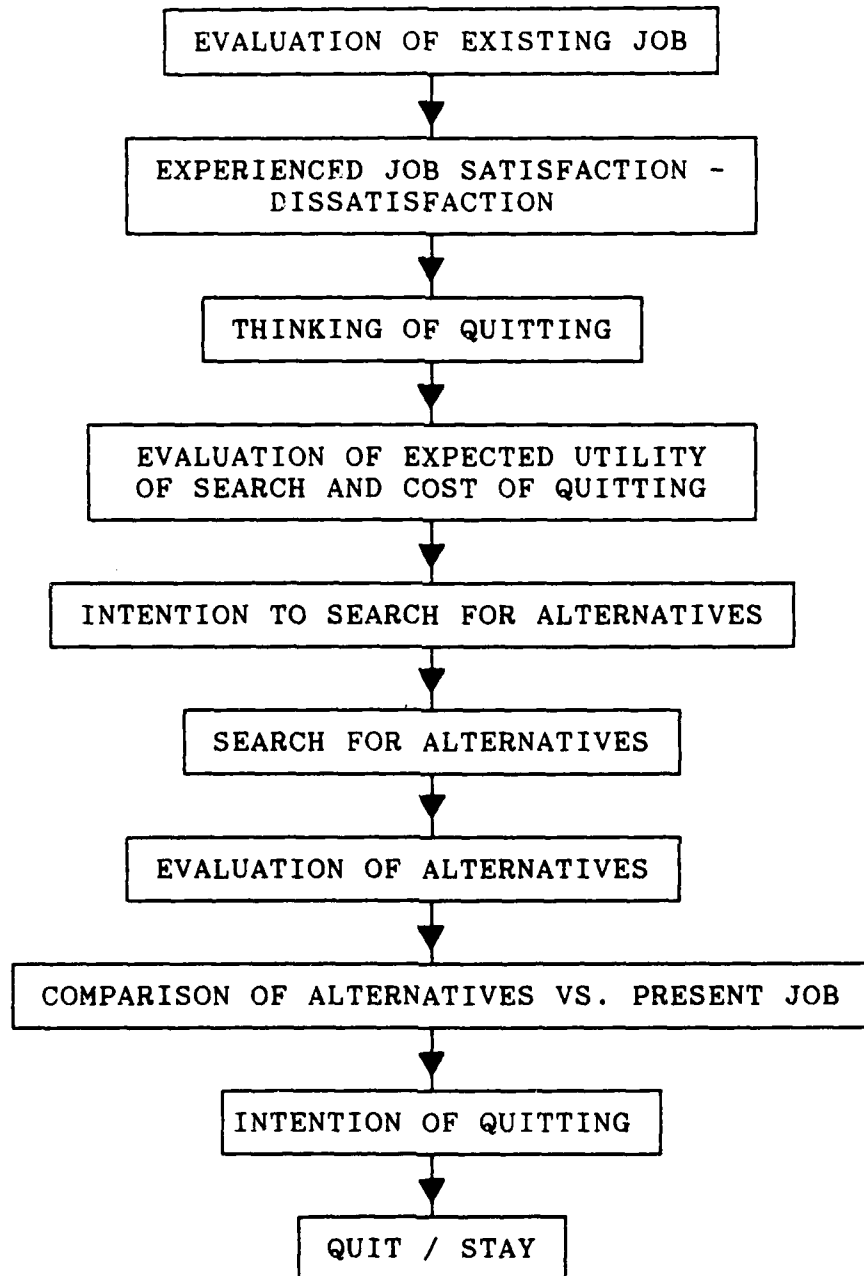
Figure 2

Major Steps in the Mobley Intermediate Linkages Model

[Adapted from Mobley, W. H. (1982). *Employee turnover: causes, consequences, and control*. Reading, MA: Addison Wesley, p. 123]

Mobley et al., 1978; Price & Mueller, 1981). Almost as prevalent is the use of job satisfaction as either a director indirect antecedent of intention to quit (Bluedorn, 1982; Michaels & Spector, 1982; Mobley et al., 1978; Price & Mueller, 1981). A third integrative variable used as an indirect predictor of turnover is organizational commitment (Bluedorn, 1982; Michaels & Spector, 1982).

In testing the model proposed in Figure 3, this study will make use of three integrative variables -- intent to quit, job satisfaction, and organizational commitment. In the proposed model, both the individual variables and the organizational variables act on the intervening variables job satisfaction and organizational commitment. In turn, job satisfaction and organizational commitment influence an employee's intent to quit. Finally, intent to quit acts as the immediate step prior to an employee's actual turnover behavior. The relationship between intent to quit and turnover will not be tested in the present study. Actual turnover data were not available.

Hypotheses. The following hypotheses were derived from the model to guide the study.

1. The organizational variables -- job performance constraints, participation in decision making, organizational communication climate, job feedback, and supervisory style -- relate to employee intentions to remain in or to leave Federal Service.
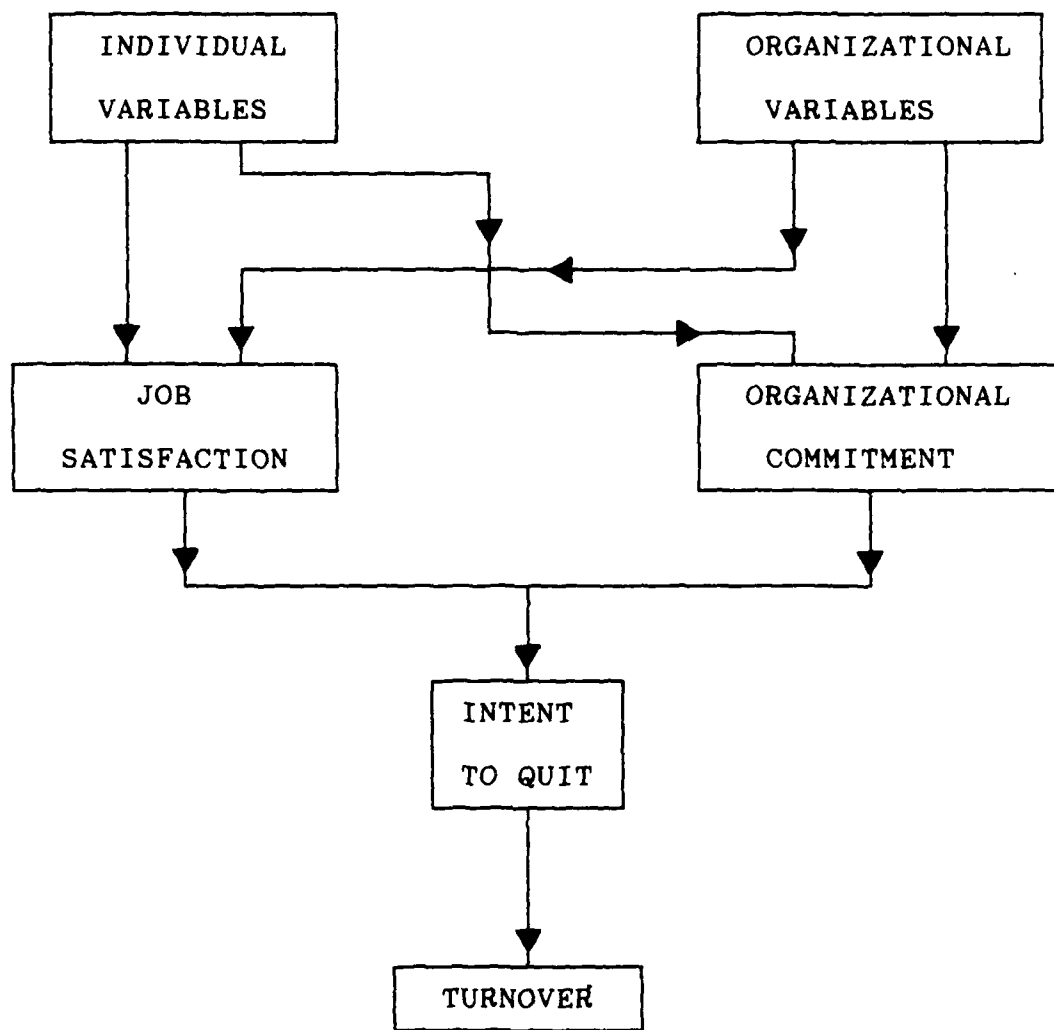
Figure 3

Proposed Turnover Model

2. The individual variables -- an employee's age, tenure, sex, education level, performance, career expectations, and organizational level -- relate to employee intentions to remain in or to leave Federal Service.

3. The two integrative variables -- job satisfaction and organizational commitment -- relate to employee intentions to remain in or to leave Federal Service.

4. The strengths of association between the predictor variables and intent to quit are influenced by the time interval between the collection of the predictors and criterion data.

5. The integrative variables -- job satisfaction and organizational commitment -- are the stronger predictors of employee intentions to quit or stay in Federal Service, followed by the organizational and individual variables.

6. As proposed by the model in Figure 3, most or all of the variance in intentions to quit (due to the influence of the organizational and individual variables) can be explained by the integrative variables -- job satisfaction and organizational commitment.

7. The integrative variables -- job satisfaction and organizational commitment -- are the stronger longitudinal predictors of employee intentions to quit or to stay in Federal Service, followed by the organizational and individual variables.

8. Over an 18 month time interval between predictor and criterion collection, most or all of the variance in intention to quit (due to tne influence of the organizational and individual variables) can be explained by the integrative variables -- job satisfaction and organizational commitment.

III. Method

The primary focus of this research is on determining the variables which have a significant effect on the employment intentions of Federal Employees working for the Defense Logistics Agency. Once these variables are identified, the contribution of each variable to the prediction of variance in employment intentions will be determined. A second objective will be to test the turnover model presented in Figure 3.

This chapter describes the methods used in the study. This chapter is organized into three main sections. First, all relevant dimensions of the sample and population are provided. Next, the measures used for each of the variables are discussed. Finally, the procedures used to collect and analyze the data are presented.

Sample

The organization studied was a division of the Defense Logistics Agency of the Department of Defense. The organization provides materials and supplies to all branches of the Department of Defense. The total organizational population was approximately 2450 individuals. The organization employs both civilian and military personnel; however, the majority of employees are civilian. An attitude survey was administered twice (approximately 18 months apart) resulting in two data sets. The first administration of the

survey produced 1502 responses and the second administration resulted in 1221 responses. Hereafter, the first survey administration will be referred to as "Survey 1" and the second survey administration will be called "Survey 2". A total of 565 individuals participated in both surveys. This data was extracted from the two cross-sectional survey results and merged to form a third database which will be referred to as the "longitudinal sample". The demographic characteristics of the samples comprising the three data sets are summarized in a series of tables in Appendix A. The typical respondent in Survey 1 was equally likely to be male or female, was between 31 to 40 years old, had completed some college work, and had worked for the organization for five years. Approximately 98% of the respondents were civilian.

Measures

The items extracted from the survey and used in this study are presented in Appendix B. Some items and scales were reverse scored. Appendix C presents a scoring protocol which specifies how the items in Appendix B were combined to construct multi-item measures. Reliability statistics for all multi-item scales are presented in Tables II, III, and IV. Table II provides alphas for the measures collected during Survey 1. Table III provides reliability statistics for the same measures from the sample of employees participating in Survey 2. Table IV provides reliability

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Table   II

Internal Consistency Reliabilities
(Survey 1)

Variable	Number of Items	N	Alpha
Performance Obstacles	4	1439	.68
Situational Constraints	14	1278	.87
Participation in Decision Making	5	1433	.85
Organizational Communication Climate	4	1454	.68
Job Feedback	5	1398	.91
Supervisory Consideration	10	1214	.89
Supervisory Structure	10	1236	.84
Performance	5	1408	.91
Career Expectations	13	1285	.81
Intrinsic Job Satisfaction	12	1244	.88
Extrinsic Job Satisfaction	6	1342	.81

Table III

Internal Consistency Reliabilities
(Survey 2)

Variable	Number of Items	N	Alpha
Performance Obstacles	4	1165	.70
Situational Constraints	14	1137	.88
Participation in Decision Making	5	1167	.86
Organizational Communication Climate	4	1194	.73
Job Feedback	5	1152	.92
Supervisory Consideration	10	1084	.90
Supervisory Structure	10	1079	.86
Performance	5	1142	.91
Career Expectations	13	1143	.81
Intrinsic Job Satisfaction	12	1137	.89
Extrinsic Job Satisfaction	6	1164	.82

Table IV

Internal Consistency Reliabilities
(Longitudinal Sample)

Variable	Number of Items	N	Alpha
Performance Obstacles	4	542	.63
Situational Constraints	14	489	.85
Participation in Decision Making	5	545	.85
Organizational Communication Climate	4	545	.63
Job Feedback	5	528	.91
Supervisory Consideration	10	468	.90
Supervisory Structure	10	480	.84
Performance	5	536	.92
Career Expectations	13	492	.83
Intrinsic Job Satisfaction	12	474	.88
Extrinsic Job Satisfaction	6	513	.80

statistics for the same measures resulting from the
longitudinal sample.

Criterion Measure. Intention to quit was used as the
criterion variable for the study. Mobley recommends using
intentions to quit to forecast turnover (Mobley, 1982). In
addition, Steel and Ovalle's (1984a) meta-analysis indicates
that intentions to quit accurately presage employee turnover.
A five-point Likert scale was used to measure employment
intentions in the current study. The scale ranged from (1)
"I definitely intend to remain in Federal Service within the
coming year" to (5) "I definitely intend to leave Federal
Service within the coming year".

Predictor Variables. The following predictor variables
were used in this study.

Performance constraints. Performance constraints
were measured using two separate measurement instruments.

The first instrument measures four performance obstacles
associated with the working environment -- job induced
constraints, interpersonal or social obstacles, environmental
obstacles, and administrative or policy constraints. The
respondents rated how often they encountered each of the four
performance obstacles in their job. Each performance
obstacle item presented on the survey form was accompanied by
a definition of the obstacle. For example, "environmental
obstacles" were defined as "factors in the physical job
environment (e.g., excessive noise or heat) and in the

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geographical locale of the work (e.g., sales potential) that effect your job performance". The response scale ranged from (1) "never" to (7) "always". This instrument has been used in previous research into the nature and consequences of situational constraints (Steel & Mento, 1986; Steel & Mento, in press). Steel and Mento (in press) report an alpha coefficient of .92, and Steel and Mento (1986) calculated an alpha coefficient of .70 for this measure. Both studies found this measure to be a valid instrument for measuring performance constraints (Steel & Mento, 1986; Steel & Mento, in press).

The second instrument used to measure job performance constraints is comprised of 14 items dealing with situational constraints associated with the respondent's job and work environment. For instance, individuals were asked to respond to the item "I typically am not given the time I need to do my job". The five point response scale used by this measure ranged from (1) "not at all accurate" to (5) "completely accurate". A "does not apply to my job " response option is also available. This instrument was extracted from a larger scale used by O'Connor, Peters, Eulberg, and Watson (1984b). They found their instrument to be a valid predictor of situational constraints. As hypothesized, situational constraints correlated significantly with lower satisfaction and greater frustration. O'Connor, Peters, Eulberg, and

Watson (1984b) report alpha reliabilities for their instrument ranging from .64 to .96.

In order to distinguish the Steel and Mento (1986) measure from the O'Connor et al. (1984b) measure, hereafter, the Steel and Mento measure will be called "performance obstacles", and the O'Connor et al. measure will be called "situational constraints".

Participation in decision making. Participation in decision making was measured using a five-item instrument measuring employee perceptions of the degree of their influence over decisions regarding their job. For example, a sample item stated "In my work-group there is a great deal of opportunity to be involved in resolving problems which affect the group". Responses were recorded on a seven-point Likert scale ranging from (1) "strongly disagree" to (7) "strongly agree". This instrument was developed by Steel and Mento (1987). In their study it yielded alpha reliabilities ranging from .85 to .90 across six military samples. Furthermore, Steel and Mento (1987) found the measure to be significantly correlated with measures of job performance and job satisfaction.

Organizational communication climate. The organization's communication climate, as perceived by the study respondents, was measured with a four-item instrument. Respondents were asked to indicate the extent to which they agreed with four statements describing their organization's

communication climate, such as "the people I work with make my job easier by sharing their ideas and opinions with me". The response scale ranged from (1) "strongly disagree" to (7) "strongly agree". In a study by Steel, Mento, Dilla, Ovalle, and Lloyd (1985) this instrument yielded internal consistency reliabilities of .70 and .73.

Job feedback. Five items from the Job Characteristics Inventory (Sims, Szilagyi, & Keller, 1976) were used to measure the degree and quality of feedback respondents receive from their supervisors. The five items were rated on five-point Likert scales ranging from (1) "very little" to (5) "very much". For example, one item asked, "to what extent do you find out how well you are doing on the job as you are working?" Sims et al. (1976) have found that the Job Characteristics Inventory yields both valid and reliable results.

Supervisory style. Employee perceptions of supervision were measured with the Leader Behavior Description Questionnaire (Stogdill, 1969). The Leader Behavior Description Questionnaire measures both leader initiation of structure and leader consideration. "Initiating structure is the extent to which leaders define and direct subordinate work activities toward goal attainment" (Daft & Steers, 1986, p. 408). "Consideration is the extent to which leaders emphasize respect for subordinates, listen to their ideas, have regard for their

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feelings, and establish mutual trust with them" (Daft &

Steers, 1986, p. 408). Ten items in the Leader Behavior

Description Questionnaire measure leader initiating structure

and ten items measure leader consideration. The items are

scaled on a five-point Likert scale ranging from (1) "always"

to (5) "never". A sample item was, "my supervisor lets group

members know what is expected of them". Stogdill (1969)

conducted an experiment to specifically investigate the

validity of the Leader Behavior Description Questionnaire and

found it to be a valid predictor of both initiating structure

and leader consideration. Stogdill, Goode, and Day (1963,

1964) report alpha reliabilities for the Leader Behavior

Description Questionnaire ranging from .72 to .78 for the

initiating structure scale and from .83 to .85 for the

consideration scale.

Age. Each respondent's age was measured using an

ordinal scale ranging from (1) "less than 20" to (7) "more

than 60". The mean and standard deviation for this measure

on Survey 1 were 4.36 and 1.55, respectively.

Tenure. Each respondent was asked to indicate his

or her length of time in the organization. The ordinal scale

ranged from (1) "less than one year" to (8) "more than 20

years". The mean and standard deviation for this measure on

Survey 1 were 3.89 and 2.36, respectively.

Sex. Each respondent was asked to indicate his or

her sex. Results revealed that 721 males and 754 females participated in Survey 1.

Education Level. Each respondent was asked to indicate his or her education level on an ordinal scale ranging from (1) "non high school graduate" to (8) "doctoral degree". The mean and standard deviation for this measure on Survey 1 were 3.58 and 1.59, respectively.

Performance. Respondents were asked to evaluate their own job performance based on feedback from their supervisors. This Feedback-Based Self-Appraisal (Steel & Ovalle, 1984b) obtained ratings on five performance dimensions -- quantity of work, quality of work, efficiency in use of resources, ability in anticipating problems, and adaptability/ flexibility in handling high-priority work. One such item was, "compared with other employees doing similar work, your supervisor considers the quality of the work you produce to be:". The response scale ranged from (1) "far worse" to (7) "far better". Steel and Ovalle (1984b) found that the Feedback-Based Self-Appraisal correlated significantly with the supervisor's assessment of an employee's level of performance.

Career expectations. The employee's intention to achieve superior job performance in the upcoming year was measured using 13 items addressing the intent to excel. The respondents were asked to rate 13 statements referencing their goals and aspirations for outstanding performance. A

typical item was "I think I will probably wind up being the top performer in my office". The response scale ranged from (1) "definitely not among my work plans" to (7) "exactly the same as my own work plans".

Organizational level. Organizational level was measured in terms of the employee's Military/Civil Service grade level. Each respondent was asked to indicate his or her current grade level ranging from (1) "1 - 2" to (8) "Senior Executive Service". Military grades were equated to the General Schedule grades of the U.S. Civil Service.

Job satisfaction. Intrinsic and extrinsic job satisfaction were measured using the Minnesota Satisfaction Questionnaire. The Minnesota Satisfaction Questionnaire (short-form) contains 20 items measuring different aspects of job satisfaction (Saal & Knight, 1988; Weiss, Dawis, England, & Lofquist, 1967). Twelve items were keyed to intrinsic aspects of the job and six items were keyed to extrinsic aspects of job satisfaction. Respondents rated each item on a five-point scale ranging from (1) "very dissatisfied" to (5) "very satisfied". Median internal consistency reliability coefficients for the Minnesota Satisfaction Questionnaire are provided by Weiss et al. (1967). Median reliabilities for intrinsic and extrinsic satisfaction scales were .86 and .80, respectively (Weiss et al., 1967). Taylor and Weiss (1972) have used the Minnesota Satisfaction

Questionnaire as a predictor of turnover and found the
measure to be a significant predictor.

Organizational commitment. One approach to
measuring organizational commitment is to focus on
attitudinal commitment (Mowday, 1979). Attitudinal
commitment exists "when the goals of the organization and
those of the individual become increasingly integrated and
congruent" (Mowday, 1979, p. 225). Since no overall measure
of organizational commitment was available in the present
study, goal congruence was used as a surrogate measure of
organizational commitment. Each respondent evaluated the
following item -- "To what extent are your organization's
goals compatible with your own personal goals?". Responses
were measured on a seven-point Likert scale ranging from (1)
"not at all" to (7) "to a very great extent". Steel and
Lloyd (in press) found that this measure of goal congruence
correlated highly (r = .61, p < .05) with Mowday et al.'s
(1979) measure of organizational commitment.

Procedure

This section presents the details of the data collection
and the procedures used to analyze the data.

Data collection. The data were collected with an
extensive survey questionnaire. Participants were told that
participation was voluntary. The survey was administered on-
site at the installation. The survey was given twice.
Survey 1 was conducted during April, 1986, and Survey 2 was

administered during October, 1987. The response rates for Survey 1 and Survey 2 were 61.3% and 49.8%, respectively. The original purpose of the survey was to collect data on the quality of employee work life; however, the quantity of data collected invited the additional investigative focus of the current study. At the time the survey was administered, respondents were asked for the last four digits of their Social Security Number. The Social Security Number was not recorded on the survey answer sheets. During both survey administrations, a separate record was kept linking Social Security numbers, survey answer sheet numbers, and work group codes. When possible, respondent results from the two surveys were matched on the basis of the last four digits of their Social Security number and their work group code. In cases where respondents had the same last four digits of the Social Security number; age, education level, and sex were used to further discriminate and match respondents. The longitudinal sample size represents 23.1% of the organization's population.

Data Analysis. Cross-sectional and longitudinal data analyses were performed.

Initially, predictor - criterion relationships were examined within the Survey 1 and Survey 2 data sets. Multiple linear regression techniques were employed to assess the relationships between predictors (organizational variables, individual variables, and integrative variables)

and the criterion variable (intent to quit). Hierarchical regression analysis was used to evaluate the turnover model proposed in Figure 3. In the hierarchical model, intent to quit was employed as the criterion variable and the integrative variables were entered into the regression in step 1, followed by the stepwise introduction of the organizational variables (step 2) and the individual variables (step 3). The purpose of this procedure was to determine if any of the individual variables or organizational variables add to the prediction of intent to quit above the prediction achieved by the integrative variables.

The longitudinal sample will be utilized to focus on the ability of the study predictors to presage intention to quit over time. Initially, relationships between predictors measured during Survey 1 and the criterion variable measured during both surveys will be examined. Regression techniques will be used to show the nature of the relationship between all predictors (organizational variables, individual variables, and integrative variables) measured during Survey 1 and the criterion variable (intent to quit) measured during Survey 2. Then, the model will be evaluated in a similar manner. Longitudinal predictions will be made over an interval of 18 months.

IV. Results

This chapter presents the results of the statistical analyses performed to test the hypotheses and the model presented in Chapter II. Initially, descriptive statistics for Survey 1, Survey 2, and the longitudinal sample will be presented. Then, the hypotheses of this study will be tested using correlation analysis, t-tests, and multiple regression analysis.

Descriptive Statistics

Table V presents the descriptive statistics for Survey 1, Table VI presents the descriptive statistics for Survey 2, and Table VII contains the descriptive statistics for the longitudinal sample. The descriptive statistics show that the average respondent in Survey 1 was between 31 to 40 years old, had completed some college work, had worked for the organization for five years, and intended to probably remain in Federal Service for the coming year.

Intercorrelation Matrices and T-Tests

Test of Hypotheses 1, 2, and 3. Hypotheses 1, 2, and 3 predicted that the organizational variables, individual variables, and integrative variables relate to an employee's intention to quit. Results contained in the intercorrelation matrices and t-tables presented in Tables VIII to XI address Hypotheses 1, 2, and 3.

Table V

Descriptive Statistics for Survey 1

Variable	M	SD	N
Performance Obstacles	16.49	4.72	1439
Situational Constraints	2.18	.86	1386
Participation in Decision Making	19.52	8.36	1433
Organizational Communication Climate	18.07	5.74	1454
Job Feedback	13.84	5.23	1398
Supervisor Initiating Structure	23.42	7.05	1236
Supervisor Consideration	33.36	8.44	1214
Age	4.36	1.55	1502
Tenure	3.89	2.36	1502
Education Level	3.58	1.59	1502
Performance	25.08	5.35	1408
Career Expectations	64.11	11.47	1285
Organizational Level	4.10	1.63	1502
Intrinsic Job Satisfaction	42.64	9.10	1244
Extrinsic Job Satisfaction	17.01	5.52	1342
Organizational Commitment	3.76	1.73	1482
Intent to Quit	2.02	1.24	1480

Table VI

Descriptive Statistics for Survey 2

Variable	M	SD	N
Performance Obstacles	16.95	4.62	1165
Situational Constraints	2.26	.89	1134
Participation in Decision Making	18.47	8.33	1167
Organizational Communication Climate	17.02	6.00	1194
Job Feedback	13.78	5.22	1152
Supervisor Initiating Structure	24.61	7.48	1079
Supervisor Consideration	31.96	8.62	1084
Age	4.39	1.52	1221
Tenure	4.27	2.14	1221
Education Level	3.67	1.62	1221
Performance	25.27	5.47	1142
Career Expectations	63.58	11.69	1143
Organizational Level	4.27	1.60	1221
Intrinsic Job Satisfaction	42.23	9.33	1137
Extrinsic Job Satisfaction	16.51	5.64	1164
Organizational Commitment	3.60	1.67	1207
Intent to Quit	2.02	1.21	1192

Table VII

Descriptive Statistics for the Longitudinal Sample

Variable	M	SD	N
Performance Obstacles	16.50	4.43	542
Situational Constraints	2.18	.87	525
Participation in Decision Making	19.38	8.38	545
Organizational Communication Climate	18.33	5.42	545
Job Feedback	14.33	5.08	528
Supervisor Initiating Structure	22.88	6.69	480
Supervisor Consideration	33.45	8.44	468
Age	4.37	1.47	565
Tenure	3.85	2.34	565
Education Level	3.73	1.59	565
Performance	25.08	5.29	536
Career Expectations	63.76	11.70	492
Organizational Level	4.18	1.53	565
Intrinsic Job Satisfaction	43.18	8.73	474
Extrinsic Job Satisfaction	17.42	5.45	513
Organizational Commitment	3.89	1.66	560
Intent to Quit (Survey 1)	1.78	1.07	559
Intent to Quit (Survey 2)	2.14	1.56	565

Table VIII presents the intercorrelation matrix for Survey 1. There were 12 significant bivariate correlations between potential predictor variables and intention to quit. Intention to quit correlated significantly with the following variables: (1) performance obstacles (r = .20); (2) situational constraints (r = .22); (3) participation in decision making (r = -.20); (4) organizational communication climate (r = -.18); (5) job feedback (r = -.16); (6) supervisory initiating structure (r = .11); (7) supervisory consideration (r = -.21); (8) performance (r = -.13); (9) career expectations (r = -.15); (10) intrinsic job satisfaction (r = -.32); (11) extrinsic job satisfaction (r = -.26); and (12) organizational commitment (r = -.28).

Table IX presents the results of t-tests on Survey 1 data testing whether intent to quit was significantly effected by sex. The t-value of 3.30 for intent to quit shows that the mean value of intent to quit was significantly (p < .001) higher for men. The remaining t-tests presented in Table IX give insight into the relationships between sex and other potential predictor variables.

Table X presents the intercorrelation matrix for Survey 2. There were 13 significant bivariate correlations between potential predictor variables and intent to quit. Intent to quit correlated significantly with the following variables: (1) performance obstacles (r = .20); (2) situational constraints (r = .28); (3) participation in decision making

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Table VIII

Intercorrelation Matrix for Survey 1

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Performance Obstacles																
2. Situational Constraints	.47															
3. Participation in Decision Making	-.28	-.29														
4. Organizational Communication Climate	-.35	-.43	.52													
5. Job Feedback	-.22	-.22	.44	.44												
6. Supervisor Initiating Structure	.20	.25	-.30	-.38	-.46											
7. Supervisor Consideration	-.29	-.36	.52	.54	.52	-.60										
8. Age	-.01	-.09	.01	.05	.04	-.13	.08									
9. Tenure	.09	.06	-.01	-.03	-.02	.03	-.02	.50								
10. Education Level	.05	.05	-.03	-.01	.00	.08	-.05	-.09	-.09							
11. Performance	-.05	.02	.19	.08	.27	-.08	.13	.07	.09	-.03						
12. Career Expectations	-.07	-.04	.13	.10	.12	-.07	.06	.01	-.04	.08	.33					
13. Organizational Level	.11	.06	.06	.03	.02	.05	-.02	.30	.36	.37	.03	.07				
14. Intrinsic Job Satisfaction	-.34	-.38	.51	.47	.45	-.37	.50	.15	.08	-.07	.18	.21	.16			
15. Extrinsic Job Satisfaction	-.42	-.44	.52	.57	.56	-.49	.68	.07	-.05	-.02	.09	.01	.12	.66		
16. Organizational Commitment	-.24	-.28	.43	.39	.37	-.29	.37	.09	.04	.03	.09	.19	.16	.55	.52	
17. Intent to Quit	.20	.22	-.20	-.18	-.16	.11	-.21	-.04	.03	.00	-.13	-.15	.04	-.32	-.26	-.28

Note: Correlations exceeding .06 are significant at $p < .05$, correlations exceeding .08 are significant at $p < .01$, and correlations exceeding .10 are significant at $p < .001$.

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Table IX

Results of T-tests Between Male and Female Respondents (Survey 1)

Variable	Degrees of Freedom	T-Value
Performance Obstacles	1414	1.30
Situational Constraints	1358	-.69
Participation in Decision Making	1405	.38
Organizational Communication Climate	1427	1.86
Job Feedback	1375	.59
Supervisory Initiating Structure	1193	1.92
Supervisory Consideration	1192	-.52
Age	1462	2.29*
Tenure	1473	-1.35
Education Level	1473	10.69***
Performance	1383	-1.63
Career Expectations	1246	.93
Organizational Level	1473	16.75***
Intrinsic Job Satisfaction	1224	.05
Extrinsic Job Satisfaction	1320	1.99*
Organizational Commitment	1455	1.58
Intent to Quit	1424	3.30***

Note: Positive t-values signify that the mean value of the variable was greater for male respondents.

* $p < .05$
*** $p < .001$

($\underline{r}$ = -.19); (4) organizational communication climate ($\underline{r}$ = -.24); (5) job feedback ($\underline{r}$ = -.20); (6) supervisory initiating structure ($\underline{r}$ = .20); (7) supervisory consideration ($\underline{r}$ = -.26); (8) age ($\underline{r}$ = -.12); (9) performance ($\underline{r}$ -.13); (10) career expectations ($\underline{r}$ -.20); (11) intrinsic job satisfaction ($\underline{r}$ = -.38); (12) extrinsic job satisfaction ($\underline{r}$ = -.32); and (13) organizational commitment ($\underline{r}$ = -.25).

Table XI presents the results of t-tests on Survey 2 data testing whether intent to quit was significantly effected by sex. The t-value of 2.59 for intent to quit shows that the mean value of intent to quit was significantly (p < .01) higher for men. The remaining t-tests presented in Table XI give insight into the relationships between sex and other potential predictor variables.

As predicted by Hypothesis 1, organizational variables -- job performance constraints (performance obstacles and situational constraints), participation in decision making, organizational communication climate, job feedback, and supervisory style (initiating structure and consideration) -- were significantly related to employee intentions to remain in or to leave Federal Service.

As predicted by Hypothesis 2, a number of individual variables -- age (in Survey 2), sex, performance, and career expectations -- were shown to significantly relate to employee intentions to quit. However, the individual variables -- tenure, education level, and organizational

Table X

Intercorrelation Matrix for Survey 2

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Performance Obstacles																
2. Situational Constraints	.47															
3. Participation in Decision Making	-.31	-.38														
4. Organizational Communication Climate	-.33	-.51	.54													
5. Job Feedback	-.16	-.25	.47	.44												
6. Supervisor Initiating Structure	.17	.28	-.30	-.39	-.43											
7. Supervisor Consideration	-.28	-.35	.52	.49	.54	-.61										
8. Age	.02	-.15	.02	.06	-.01	-.09	.03									
9. Tenure	.06	-.02	.04	-.01	.02	-.02	.01	.50								
10. Education Level	.10	.10	-.07	-.02	.03	.04	-.02	-.11	-.08							
11. Performance	-.02	-.05	.19	.1	.29	-.06	.21	.04	.06	.00						
12. Career Expectations	-.03	-.05	.12	.09	.16	-.11	.08	.01	-.01	.08	.36					
13. Organizational Level	.11	.05	.03	.00	.03	.01	.00	.20	.31	.43	.06	.12				
14. Intrinsic Job Satisfaction	-.34	-.49	.53	.52	.45	-.39	.51	.13	.09	-.04	.22	.26	.10			
15. Extrinsic Job Satisfaction	-.33	-.48	.54	.55	.55	-.48	.66	.10	.06	-.01	.16	.07	.13	.69		
16. Organizational Commitment	-.27	-.35	.36	.39	.33	-.27	.35	.12	.02	.02	.13	.20	.12	.50	.48	
17. Intent to Quit	.20	.28	-.19	-.24	-.20	.20	-.26	-.12	-.04	.05	-.13	-.20	-.01	-.38	-.32	-.25

Note: Correlations exceeding .06 are significant at $p < .05$, correlations exceeding .08 are significant at $p < .01$, and correlations exceeding .10 are significant at $p < .001$.

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Table XI

Results of T-tests Between Male and
Female Respondents (Survey 2)

Variable	Degrees of Freedom	T-Value
Performance Obstacles	1142	.63
Situational Constraints	1111	.00
Participation in Decision Making	1145	.54
Organizational Communication Climate	1170	-.04
Job Feedback	1132	.82
Supervisory Initiating Structure	1066	.57
Supervisory Consideration	1071	-.66
Age	1194	.98
Tenure	1195	-1.46
Education Level	1127	11.97***
Performance	1120	-1.70
Career Expectations	1121	.64
Organizational Level	1192	13.80***
Intrinsic Job Satisfaction	1125	-.30
Extrinsic Job Satisfaction	1146	.87
Organizational Commitment	1184	1.98*
Intent to Quit	1173	2.59**

Note: Positive t-values signify that the mean value of the variable was greater for male respondents.

*	p < .05
**	p < .01
***	p < .001

level -- were not significantly related to employee intentions to quit.

As predicted by Hypothesis 3, the integrative variables -- job satisfaction (intrinsic and extrinsic) and organizational commitment -- were significantly related to employee intentions to quit.

Test of Hypothesis 4. Hypothesis 4 predicted that the strength of association between the predictor variables and intent to quit would be influenced by the time interval between the collection of the predictor and criterion data.

Table XII presents the intercorrelation matrix for the longitudinal sample. The correlations between the potential predictor variables measured during Survey 1 and intent to quit measured during Survey 1 and Survey 2 show that the predictor - criterion relationship was dependent on the time interval between the predictor and criterion data collection. The correlations between intent to quit and the following variables were moderated by the time interval between predictor and criterion collection: performance obstacles, participation in decision making, organizational communication climate, job feedback, supervisory initiating structure, supervisory consideration, tenure, education level, performance, organizational level, intrinsic and extrinsic job satisfaction, and organizational commitment. Correlations between intent to quit and two variables -- age and career expectations -- showed virtually no change over

Table XII

Intercorrelation Matrix for the Longitudinal Sample

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Performance Obstacles																	
2. Situational Constraints	.47																
3. Participation in Decision Making	-.27	-.32															
4. Organizational Communication Climate	-.36	-.40	.51														
5. Job Feedback	-.18	-.20	.40	.45													
6. Supervisor Initiating Structure	.13	.30	-.28	-.37	-.46												
7. Supervisor Consideration	-.27	-.38	.54	.52	.51	-.58											
8. Age	-.04	-.04	.04	.08	-.01	-.11	.08										
9. Tenure	.08	.16	-.03	-.04	-.07	.03	-.05	.48									
10. Education Level	.06	.08	-.04	-.02	-.02	.10	-.08	-.13	-.12								
11. Performance	-.07	.06	.21	.08	.24	-.03	.09	.06	.13	-.16							
12. Career Expectations	-.06	-.04	.20	.12	.14	-.08	.09	.00	-.06	-.03	.28						
13. Organizational Level	.10	.11	.06	.01	-.05	.07	-.06	.29	.35	.39	-.03	.02					
14. Intrinsic Job Satisfaction	-.33	-.42	.55	.45	.42	-.33	.51	.13	.02	-.11	.13	.19	.12				
15. Extrinsic Job Satisfaction	-.40	-.48	.57	.58	.53	-.44	.69	.06	-.10	-.01	.07	.01	.10	.64			
16. Organizational Commitment	-.15	-.25	.43	.36	.36	-.25	.32	.06	.03	.03	.07	.20	.15	.49	.44		
17. Intent to Quit (Survey 1)	.20	.20	-.20	-.19	-.21	.14	-.26	-.03	.05	.10	-.12	-.15	.14	-.33	-.29	-.27	
18. Intent to Quit (Survey 2)	.11	.26	-.17	-.12	-.13	.07	-.15	-.04	.01	.01	-.05	-.15	-.04	-.21	-.20	-.16	.33

Note: Correlations exceeding .10 are significant at $p < .05$, correlations exceeding .12 are significant at $p < .01$, and correlations exceeding .15 are significant at $p < .001$.

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Table XIII

Results of T-tests Between Male and Female
Respondents (Longitudinal Sample)

Variable	Degrees of Freedom	T-Value
Performance Obstacles	533	.26
Situational Constraints	495	-2.09*
Participation in Decision Making	536	.89
Organizational Communication Climate	536	1.58
Job Feedback	492	.02
Supervisory Initiating Structure	473	1.70
Supervisory Consideration	459	-.75
Age	555	1.45
Tenure	555	-2.91**
Education Level	555	8.32***
Performance	527	-2.31*
Career Expectations	472	-.51
Organizational Level	537	10.52***
Intrinsic Job Satisfaction	466	-.14
Extrinsic Job Satisfaction	505	1.73
Organizational Commitment	551	2.20*
Intent to Quit (Survey 1)	539	3.01**
Intent to Quit (Survey 2)	555	.63

Note: Positive t-values signify that the mean value of the
variable was greater for male respondents.

*	$p < .05$
**	$p < .01$
***	$p < .001$

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the 18 month time interval between predictor and criterion measurement. Situational constraints was the only variable which showed higher correlation with intent to quit measured during Survey 2 (r = .26) than with intent to quit measured during Survey 1 (r = .20).

The t-test results in Table XIII show that although sex was a significant cross-sectional predictor of intention to quit (t-value = 3.01), sex was not a significant longitudinal predictor of intent to quit (t-value = .68). As predicted by Hypothesis 4, the ability of gender to predict intent to quit was also effected by the time lag between predictor and criterion collection. The remaining t-tests presented in Table XIII give insight into the relationships between sex and other potential predictors of intent to quit.

Overall, Hypothesis 4 was supported by the results presented in Tables XII and XIII. These results also agreed with Steel and Ovalle's (1984a) findings that the temporal proximity of measures moderates predictor - turnover relationships.

Regression Analyses

Stepwise and hierarchical regression analysis techniques were employed to test Hypotheses 5, 6, 7, and 8.

Test of Hypothesis 5. Hypothesis 5 predicted that the integrative variables -- job satisfaction and organizational commitment -- would be stronger predictors of employee intentions to quit or stay in Federal Service than

organizational and individual variables. This hypothesis was tested by performing two stepwise regression procedures. In the first analysis, intention to quit was regressed on the predictor variables contained in the Survey 1 data. In the second analysis, intention to quit was regressed on Survey 2 predictors.

Table XIV presents the results of the stepwise regression using all predictor variables from Survey 1 to predict intention to quit measured concomitantly. Six variables entered significantly into the regression equation: (1) intrinsic job satisfaction ($\Delta R^2 = .117$); (2) organizational commitment ($\Delta R^2 = .024$); (3) performance obstacles ($\Delta R^2 = .015$); (4) performance ($\Delta R^2 = .008$); (5) situational constraints ($\Delta R^2 = .005$); and (6) sex ($\Delta R^2 = .005$).

Results of the stepwise regression focusing on cross-sectional predictors of Survey 2's measure of intention to quit are presented in Table XV. Four variables entered into this prediction equation: (1) intrinsic job satisfaction ($\Delta R^2 = .171$); (2) career expectations ($\Delta R^2 = .012$); (3) situational constraints ($\Delta R^2 = .016$); and (4) extrinsic job satisfaction ($\Delta R^2 = .007$).

Hypothesis 5 was generally supported by these results. In the Survey 1 regression analysis the two strongest predictors were two of the integrative variables -- intrinsic job satisfaction and organizational commitment, followed by

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Table XIV

Results of Stepwise Regression Analysis on
Predictors of Intention to Quit (Survey 1)

Predictor	Beta	R^2	ΔR^2
Intrinsic Job Satisfaction	-.16	.117	.117***
Organizational Commitment	-.17	.141	.024***
Performance Obstacles	.10	.156	.015***
Performance	-.10	.164	.008**
Situational Constraints	.09	.169	.005*
Sex	-.07	.174	.005*

*	$p < .05$
**	$p < .01$
***	$p < .001$

Table XV

Results of Stepwise Regression Analysis on
Predictors of Intention to Quit (Survey 2)

Predictor	Beta	R^2	ΔR^2
Intrinsic Job Satisfaction	-.23	.171	.171***
Career Expectations	-.14	.184	.012***
Situational Constraints	.12	.199	.016***
Extrinsic Job Satisfaction	-.12	.207	.007**

**   p < .01
***   p < .001

two organizational variables and two individual variables. The best predictor of intent to quit using the Survey 2 data was also an integrative variable -- intrinsic job satisfaction. However, a second integrative variable (extrinsic job satisfaction) entered into the Survey 2 equation after an organizational variable (situational constraints) and an individual variable (career expectations). The strength of the integrative variables (intrinsic job satisfaction and organizational commitment) as predictors of intent to quit agree with earlier work cited by Mobley (1982) and by Steel and Ovalle (1984a). Intrinsic job satisfaction's superiority as a predictor of turnover agrees with findings of studies by Taylor and Weiss (1972) and Maimon and Ronen (1978).

Test of Hypothesis 6. Hypothesis 6 predicted that most or all of the variance in intention to quit (due to the influence of the organizational and individual variables) may be explained by the integrative variables (job satisfaction and organizational commitment). The purpose of Hypothesis 6 was to test the model proposed in Figure 3. Hypothesis 6 was tested by performing two separate stepwise hierarchial regression procedures using first Survey 1 data and then Survey 2 data. In each procedure, all three integrative variables were first entered into a regression model predicting intent to quit. Then, the organizational variables and individual variables were added stepwise to

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determine if these variables would add to the predicted variance in intention to quit, beyond the variance already explained by the integrative variables.

Table XVI presents the results of the hierarchical regression on Survey 1 data. The three integrative variables were able to explain 14.4% of the variance in intention to quit ($\Delta R^2 = .144$). Three additional variables entered significantly: (1) performance obstacles ($\Delta R^2 = .012$); (2) performance ($\Delta R^2 = .008$); and (3) sex ($\Delta R^2 = .005$). Overall, the integrative variables accounted for 83% of the explainable criterion variance.

Table XVII presents the results of the hierarchical regression using Survey 2 data. The integrative variables explained 18.4% of the variance in intent to quit ($\Delta R^2 = .184$). One of the organizational variables and one of the individual variables entered significantly -- situational constraints ($\Delta R^2 = .006$) and career expectations ($\Delta R^2 = .017$). Overall, the integrative variables accounted for 88% of the explainable criterion variance.

Hypothesis 6 was supported by the results presented in Tables XVI and XVII. These results also agree with the findings of Michaels and Spector (1982) in which job satisfaction and organizational commitment were found to be useful intervening variables in the prediction of intent to quit.

Table XVI

Results of Stepwise Hierarchical Regression Analysis
Testing the Proposed Turnover Model (Survey 1)

Predictor	Beta	R^2	$\triangle R^2$
Integrative Variables		.144	.144***
Intrinsic Job Satisfaction	-.15		
Extrinsic Job Satisfaction	-.05		
Organizational Commitment	-.17		
Organizational Variables			
Performance Obstacles	.12	.157	.012***
Individual Variables			
Performance	-.09	.165	.008**
Sex	-.07	.170	.005*

*	$p < .05$
**	$p < .01$
***	$p < .001$

Table XVII

Results of Stepwise Hierarchical Regression Analysis Testing the Proposed Turnover Model (Survey 2)

Predictor	Beta	R^2	ΔR^2
Integrative Variables		.184	.184***
Intrinsic Job Satisfaction	-.22		
Extrinsic Job Satisfaction	-.11		
Organizational Commitment	-.05		
Organizational Variables			
Situational Constraints	.12	.191	.006*
Individual Variables			
Career Expectations	-.09	.208	.017***

* $p < .05$
*** $p < .001$

Test of Hypothesis 7. Hypothesis 7 predicted that the integrative variables would be the best predictors of intention to quit in the longitudinal analysis. Hypothesis 7 was tested by using the longitudinal sample and performing a stepwise regression employing all predictors collected during Survey 1 to predict intention to quit measures extracted from Survey 2.

Table XVIII presents the results of the stepwise regression analysis used to test for longitudinal predictors of intent to quit. Two variables entered into the regression equation: (1) intrinsic job satisfaction (ΔR^2 = .044) and (2) situational constraints (ΔR^2 = .013). The first variable which entered was an integrative variable (intrinsic job satisfaction) as predicted by Hypothesis 7. No other integrative variables entered into the equation. The only other variable which entered was an organizational variable -- situational constraints.

The results presented in Table XVIII partially support Hypothesis 7. Although an integrative variable did explain the majority of the explained variance in intent to quit, the other two integrative variables did not enter into the equation. The utility of intrinsic job satisfaction as a predictor of turnover agrees with existing turnover literature (Cotton & Tuttle, 1986; Mobley, 1982; Steel & Ovalle, 1984a).

Table XVIII

Results of Stepwise Regression Analysis on
Longitudinal Predictors of Intention to Quit

Predictor	Beta	R^2	ΔR^2
Intrinsic Job Satisfaction	-.16	.044	.044***
Situational Constraints	.13	.057	.013*

*	$p < .05$
***	$p < .001$

Test of Hypothesis 8. Hypothesis 8 predicted that over
an 18 month time interval between predictor and criterion
data collection, most or all of the variance in intention to
quit (due to the influence of the organizational and
individual variables) may be explained by the integrative
variables. The purpose of this hypothesis was to test the
Figure 3 model when there is a time lag between predictor and
criterion data collection. Hypothesis 8 was tested by using
the longitudinal sample to regress Survey 2 intention to quit
on Survey 1 predictor variables. On the first step, all
integrative variables were entered into the regression
equation. Next, the organizational variables were entered
stepwise. Finally, the individual variables were entered
stepwise.

Table XIX presents the results of the hierarchical
regression used to test the model proposed in Figure 3. The
three integrative variables entered on the first step
explained 4.9% of the total variance in intent to quit (ΔR^2
= .049). Situational constraints was the only other variable
that entered (ΔR^2 = .013). In this test, the integrative
variables accounted for 79% of the explainable criterion
variance.

Hypothesis 8 was partially supported by the results
presented in Table XIX.

Table XIX

Results of Stepwise Hierarchical Regression Analysis
Testing the Proposed Longitudinal Turnover Model

Predictor	Beta	R^2	ΔR^2
Integrative Variables		.049	.049**
Intrinsic Job Satisfaction	-.15		
Extrinsic Job Satisfaction	.05		
Organizational Commitment	-.08		
Organizational Variables			
Situational Constraints	.13	.062	.013*
Individual Variables			
(No Individual Variables Entered Significantly)			

*   p < .05
** p < .01

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V. Discussion and Conclusions

This study reviewed literature on potential turnover predictors and also summarized three classic turnover models. The three models discussed were developed by March and Simon (1958), Price (1977), and Mobley (1977).

A common element found in all three reviewed models is that job satisfaction plays a key role in the turnover process. March and Simon's (1958) model portrays job satisfaction as influencing an employee's perceived desirability of movement which in turn acts on turnover. Price's (1977) model shows job satisfaction acting directly on turnover whereas Mobley (1977) includes an employee's experienced job satisfaction or dissatisfaction in a series of steps leading up to potential quit behavior.

A second similarity throughout the three classic models is the presence of the search and evaluation of alternatives. March and Simon (1958) called this the perceived number of extraorganizational alternatives and the perceived possibility of intraorganizational transfer. Price (1977) simply shows that opportunity bears a direct positive influence on turnover. Finally, Mobley (1977) conceives of the search for alternatives as a process of four separate steps called the intention to search for alternatives, search for alternatives, evaluation of alternatives, and the comparison of alternatives. As suggested by the model

proposed in the current study, an employee's propensity to search for alternatives might be closely related to his or her organizational commitment. Employees with high organizational commitment were hypothesized to be less inclined to search for alternatives.

Contemporary turnover literature shows that intention to quit is also an important step in the overall turnover process. In Mobley's (1977) model, intention to quit is the last step just prior to an employee's actual quit behavior. Also, Steel and Ovalle (1984a) report that intentions to quit are the single best turnover predictors.

Based on the reviewed literature, this study's model (Figure 3) was proposed. The proposed model focuses on intention to quit, a primary predictor of turnover, and two intervening variables -- job satisfaction and organizational commitment.

Significant Predictors and Analysis of Proposed Model

The results of this study identified several significant predictors of intent to quit, as well as providing some support for the proposed model.

Initially, intercorrelations between potential turnover predictors and intention to quit were presented to show the bivariate relationships among all variables in both the cross-sectional and longitudinal samples. T-test results were also presented to show the influence of sex on the other variables. Stepwise and hierarchical regression analyses

were employed to test the strength of the potential predictors and to test the proposed model.

Cross-sectional analysis. Hypotheses 1, 2, 3, 5, and 6 dealt with cross-sectional relationships among potential predictor variables and intention to quit.

As predicted by Hypothesis 1, a number of organizational variables -- job performance constraints, participation in decision making, organizational communication climate, job feedback, and supervisory style -- related significantly to intention to quit. As predicted by Hypothesis 2, a number of individual variables -- age, sex, performance, and career expectations -- related significantly to intention to quit. The individual variables -- tenure, education level, and organizational level -- did not relate significantly to intention to quit contrary to Hypothesis 2. As predicted by Hypothesis 3, the integrative variables -- job satisfaction and organizational commitment -- were significantly correlated with intention to quit.

Hypothesis 5 predicted that the integrative variables -- job satisfaction and organizational commitment -- would be the best predictors of intent to quit. In both Survey 1 and 2 data, intrinsic job satisfaction was the best predictor. In Survey 1 the following variables were found to be significant predictors of intent to quit: intrinsic job satisfaction, organizational commitment, performance obstacles, performance, situational constraints, and sex.

The following significant predictors were found in the Survey 2 analysis: intrinsic job satisfaction, career expectations, situational constraints, and extrinsic job satisfaction. In both the Survey 1 and Survey 2 regression equations, an integrative variable (intrinsic job satisfaction) was the strongest predictor of intent to quit as proposed by Hypothesis 5. The remaining integrative variables did not consistently enter before some of the organizational and individual variables. Therefore, Hypothesis 5 was partially supported.

Hypothesis 6 tested the model proposed in Figure 3. Hierarchical regression analysis was used to measure the amount of the explainable variance in intent to quit attributable to integrative variables (i.e., job satisfaction and organizational commitment). As predicted by Hypothesis 6 and the proposed model, most of the variance in intent to quit was explained by the integrative variables. In Survey 1 the integrative variables accounted for 83% of the explainable criterion variance. Similarly, in Survey 2, the integrative variables explained 88% of the total variance in intent to quit accounted for by all integrative, organizational, and individual variables. Overall, the integrative variables explained 14.4% and 18.4% (Survey 1 and Survey 2, respectively) of the total variance in intent to quit. This compares to 17.7% and 20.8% (Survey 1 and Survey 2, respectively) of the total variance in intent to quit

accounted for by all significant organizational, individual, and integrative variables.

Longitudinal analysis. The longitudinal prediction of turnover intentions was addressed by Hypotheses 4, 7, and 8.

Hypothesis 4 predicted that the strength of association between the predictors and intent to quit was a function of the time interval between predictor and criterion measurement. With few exceptions, Hypothesis 4 was supported by the results of the correlation analysis and t-tests. The following variables showed weaker longitudinal relationships than cross-sectional relationships: performance obstacles, participation in decision making, organizational communication climate, job feedback, supervisory initiating structure, supervisory consideration, tenure, sex, education level, performance, organizational level, intrinsic and extrinsic job satisfaction, and organizational commitment. Relationships between intent to quit and two variables -- age and career expectations -- showed little or no change over the 18 month time interval between predictor and criterion measurement. Surprisingly, situational constraints displayed a higher degree of correlation with intent to quit measured during Survey 2 (r = .26) than with intent to quit measured during Survey 1 (r = .20).

Hypothesis 7 predicted that the integrative variables would be the most accurate longitudinal predictors of intent to quit. The hypothesis was partially supported. An

integrative variable -- intrinsic job satisfaction -- entered the regression equation first (ΔR^2 = .044), followed by an organizational variable -- situational constraints (ΔR^2 = .013). The longitudinal regression equation was able to account for 5.7% of the total variance in intent to quit across the 18 month time interval, compared to the cross-sectional analyses in which 17.4% and 20.7% (Survey 1 and Survey 2, respectively) of the total variance in intent to quit was accounted for by model variables.

Hypothesis 8 predicted that the integrative variables would explain the majority of the variance in intent to quit that was due to the influence of the integrative, organizational, and individual variables. Some support for this hypothesis was obtained. The integrative variables accounted for 79% of the variance explained by all the variables in the model. Overall, the integrative variables in the longitudinal model predicted 4.9% of the total variance in intent to quit.

The hypotheses tested in this study offer moderate support for the model proposed in Figure 3. The demonstrated utility of the integrative variables for consolidating several turnover predictors agrees with the contributions of Mobley (1982). Also, the use of job satisfaction and organizational commitment as intervening variables in the prediction of turnover agree with the work of Michaels and Spector (1982).

Comparison of Present Findings to Previous Research

With few exceptions, the results obtained in the current study generally agreed with the turnover literature. However, the relationships between tenure, performance constraints and intent to quit did not follow general trends found in the turnover literature. Mobley (1982) reports a consistent relationship between tenure and turnover whereas this study found no significant relationship. Also, the relationship between performance constraints and intent to quit was stronger than expected. Peters et al. (1985) report that there may be only a weak positive relationship between withdrawal plans and performance constraints. In the current study's sample, the intent to quit - performance constraint relationship was investigated using two measures of performance constraints. Both measures displayed a moderate relationship with intent to quit. The correlation coefficients relating performance obstacles to intent to quit were .20 ($p < .001$) in both Survey 1 and Survey 2. Similarly, the correlation coefficients relating situational constraints to intent to quit were .22 ($p < .001$) in Survey 1 and .28 ($p < .001$) in Survey 2. These results show a stronger relationship between job performance constraints and intent to quit than indicated by the literature. Based on these findings, future turnover studies may wish to include performance constraints as a potential predictor.

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Generally, the results of the stepwise regressions used to test the strength of potential turnover predictors agreed with findings discussed by Mobley (1982) and Cotton and Tuttle (1986). More specifically, intrinsic job satisfaction was found to be a significant predictor of intent to quit. This result supports Hypothesis 5 and also agrees with earlier research by Maimon and Ronen (1978), Mobley (1982), Steel and Ovalle (1984a), and Taylor and Weiss (1972). However, the ability of performance constraints (performance obstacles and situational constraints) to predict intent to quit was somewhat unexpected. In Survey 1, constraints explained 2% (performance obstacles, $\Delta R^2 = .015$; situational constraints, $\Delta R^2 = .005$) of the total variance in intent to quit. In Survey 2, situational constraints explained 1.6% of the total variance in intent to quit. Although these variances seem small, Mobley (1982) stated that generally, only 20% of the total variance in turnover is accounted for. The present study attributed greater variance in intent to quit to situational constraints than did any of the reviewed literature. O'Connor et al. (1984) found that constraints accounted for only 1% of the variance in a turnover criterion. In another study, O'Connor et al. (1984a) found no significant relationship between situational constraints and intent to quit.

The results obtained in the test of the proposed model concur with previous work by Michaels and Spector (1982) in

which job satisfaction and organizational commitment were found to be useful intervening variables in the prediction of turnover. Also, Mobley (1982) suggests the use of job satisfaction and organizational commitment for summarizing the combined effects of many individual and organizational variables.

The results obtained in the longitudinal part of the study are reasonably consistent with previous literature. Evidence was found of a moderating effect for time lag on the accuracy of turnover prediction (Steel & Ovalle, 1984a). Also, the utility of job satisfaction as a predictor of turnover is documented in several literature reviews (Cotton & Tuttle, 1986; Mobley, 1982; Steel & Ovalle, 1984a). However, no literature was found to indicate the unexpected finding of this study -- situational constraints entered as a significant longitudinal predictor of intent to quit.

Recommendations

The results of this study indicate that the following variables are significantly related to DoD employees' intention to quit: intrinsic job satisfaction, organizational commitment, performance obstacles, career expectations, situational constraints, performance, extrinsic job satisfaction, and sex. Intrinsic job satisfaction and situational constraints were shown to be significant predictors of intent to quit over time.

The Department of Defense can use this information in potential employee retention programs. From a practical standpoint, the Department of Defense might attempt to control employee turnover by attempting to intervene in order to alter levels of some of these measures. The Department of Defense has already used this tactic somewhat in controlling turnover. When the peacetime draft was suspended, congress raised pay levels to control retention rates. In effect, the government used wages to increase extrinsic job satisfaction and in turn increase retention rates. The same scheme could be extended by addressing intrinsic job satisfaction, performance obstacles, situational constraints, and career expectations. Programs could be set up to match the right people with the right jobs and therefore increase intrinsic job satisfaction. Alternatively, intrinsic job satisfaction could be increased (and therefore turnover decreased) by redesigning certain jobs which show traditionally high turnover rates. Turnover could also be reduced somewhat by reducing job performance constraints. The results of this study, compared to existing literature, show that detrimental effects of performance constraints on job performance are higher in this government sample than in samples from the private sector. The Department of Defense could study alternatives for reducing these obstacles. Potential obstacles might include job induced constraints, environmental constraints, and administrative or policy

constraints. By finding ways to reduce situational constraints, the Department of Defense may reduce turnover rates, as well as improve efficiency. In addition, career expectations may be manipulated to retain high performers. Feedback to high performers may increase their expectations and in turn reduce their quit rate. Overall, the Department of Defense needs to take advantage of low cost methods for reducing employee turnover. The ability to retain quality employees will only become more difficult as fewer people enter the work force due to the declining birthrate. With the ever increasing pressure on the defense budget, the Department of Defense will be forced to take advantage of low cost strategies for reducing employee turnover.

Study Limitations

Certain limitations apply to this study.

First, the labor market variables discussed in Chapter II were not included in this study. Variables, such as the unemployment rate, may have a significant effect on employee turnover.

Second, this study used an existing data base, and therefore, only those variables in the data base were available for analysis.

Third, actual employee turnover was not measured; only employment intentions were available for study.

Fourth, although the sample size was large, it was not a random sample. All respondents were volunteers.

Finally, the sample used was taken from a Department of Defense agency and therefore some aspects of this study may not be characteristic of results obtained from an organization in the private sector.

Further Research

Further research is needed to replicate and extend the findings of this study. Although the results of this study supported the hypotheses and proposed model, this study may be replicated by performing the following research:

1. The model in this study should be tested using a random sample.

2. The study should be repeated using actual turnover data so that the whole model, including the intent to quit - turnover link, may be evaluated.

3. The study accounted for only 20.8 % of the variance in intent to quit. Further refinement of the model is necessary to increase the overall prediction of turnover.

4. The model proposed in this study should be evaluated with samples from the private sector so that the results may be generalized beyond public sector populations.

5. Additional integrative variables may be added to the model in an effort to increase the degree of predictive accuracy.

Appendix A: <u>Demographic Characteristics</u>

Respondents' Ages (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less than 20	31	2.1	2.1
20 to 25	174	11.6	13.6
26 to 30	232	15.4	29.1
31 to 40	370	24.6	53.7
41 to 50	291	19.4	73.1
51 to 60	311	20.7	93.8
More than 60	80	5.3	99.1
Missing Response	13	0.9	100.0
Total Responses	1502	100.0	

Respondents' Ages (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less than 20	24	2.0	2.0
20 to 25	116	9.5	11.5
26 to 30	197	16.1	27.6
31 to 40	330	27.0	54.6
41 to 50	240	19.7	74.3
51 to 60	233	19.1	93.4
More than 60	67	5.5	98.9
Missing Response	14	1.1	100.0
Total Responses	1221	100.0	

Respondents' Ages (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less than 20	9	1.6	1.6
20 to 25	63	11.2	12.7
26 to 30	85	15.0	27.8
31 to 40	141	25.0	52.7
41 to 50	120	21.2	74.0
51 to 60	120	21.2	95.2
More than 60	25	4.4	99.6
Missing Response	2	0.4	100.0
Total Responses	565	100.0	

Respondents' Sex (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
Male	721	48.0	48.0
Female	754	50.2	98.2
Missing Response	27	1.8	100.0
Total	1502	100.0	

Respondents' Sex (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
Male	554	45.4	45.4
Female	643	52.7	98.0
Missing Response	24	2.0	100.0
Total	1221	100.0	

Respondents' Sex (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
Male	281	49.7	49.7
Female	276	48.8	98.6
Missing Response	8	1.4	100.0
Total	565	100.0	

Respondents' Education Level (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
Non High School Graduate	23	1.5	1.5
High School Graduate or GED	462	30.8	32.3
Some College Work	421	28.0	60.3
Associate Degree	91	6.1	66.4
Bachelor's Degree	329	21.9	88.3
Some Graduate Work	106	7.1	95.3
Master's Degree	52	3.5	98.8
Doctoral Degree	8	0.5	99.3
Missing Response	10	0.7	100.0
Total	1502	100.0	

Respondents' Education Level (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
Non High School Graduate	19	1.6	1.6
High School Graduate or GED	348	28.5	30.1
Some College Work	344	28.2	58.2
Associate Degree	70	5.7	64.0
Bachelor's Degree	265	21.7	85.7
Some Graduate Work	116	9.5	95.2
Master's Degree	46	3.8	98.9
Doctoral Degree	5	0.4	99.3
Missing Response	8	0.7	100.0
Total	1221	100.0	

Respondents' Education Level (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
Non High School Graduate	8	1.4	1.4
High School Graduate or GED	166	29.4	30.8
Some College Work	128	22.7	53.5
Associate Degree	34	6.0	59.5
Bachelor's Degree	156	27.6	87.1
Some Graduate Work	49	8.7	95.8
Master's Degree	21	3.7	99.5
Doctoral Degree	2	0.4	99.8
Missing Response	1	0.2	100.0
Total	565	100.0	

Respondents' Grade Level (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
1 - 2	24	1.6	1.6
3 - 4	334	22.2	23.8
5 - 6	249	16.6	40.4
7 - 8	167	11.1	51.5
9 - 10	385	25.6	77.2
11 - 12	291	19.4	96.5
13 - 15	41	2.7	99.3
Senior Executive	1	0.1	99.3
Missing Response	10	0.7	100.0
Total Responses	1502	100.0	

Respondents' Grade Level (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
1 - 2	21	1.7	1.7
3 - 4	223	18.3	20.0
5 - 6	191	15.6	35.6
7 - 8	111	9.1	44.7
9 - 10	377	30.9	75.6
11 - 12	264	21.6	97.2
13 - 15	20	1.6	98.9
Senior Executive	1	0.1	98.9
Missing Response	13	1.1	100.0
Total Responses	1221	100.0	

Respondents' Grade Level (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
1 - 2	8	1.4	1.4
3 - 4	106	18.8	20.2
5 - 6	91	16.1	36.3
7 - 8	73	12.9	49.2
9 - 10	157	27.8	77.0
11 - 12	119	21.1	98.1
13 - 15	10	1.8	99.8
Senior Executive	0	0	99.8
Missing Response	1	0.2	100.0
Total Responses	565	100.0	

Respondents' Supervisory Status (Survey 1)

People Supervised	Frequency		
	Absolute	Percentage	Cumulative
None	1325	88.2	88.2
1 - 2	24	1.6	89.8
3 - 5	35	2.3	92.1
6 - 8	31	2.1	94.2
9 - 12	37	2.5	96.7
13 - 20	27	1.8	98.5
21 Or More	12	0.8	99.3
Missing Response	11	0.7	100.0
Total	1502	100.0	

Respondents' Supervisory Status (Survey 2)

People Supervised	Frequency		
	Absolute	Percentage	Cumulative
None	1050	86.0	86.0
1 - 2	17	1.4	87.4
3 - 5	37	3.0	90.4
6 - 8	31	2.5	93.0
9 - 12	29	2.4	95.3
13 - 20	34	2.8	98.1
21 Or More	9	0.7	98.9
Missing Response	14	1.1	100.0
Total	1221	100.0	

Respondents' Supervisory Status (Longitudinal Sample)

People Supervised	Frequency		
	Absolute	Percentage	Cumulative
None	509	90.1	90.1
1 - 2	9	1.6	91.7
3 - 5	12	2.1	93.8
6 - 8	6	1.1	94.9
9 - 12	13	2.3	97.2
13 - 20	11	1.9	99.1
21 Or More	3	0.5	99.6
Missing Response	2	0.4	100.0
Total	565	100.0	

Respondents' Tenure (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less Than 1 Year	264	17.6	17.6
1 - 2 Years	315	21.0	38.5
3 - 4 Years	185	12.3	50.9
5 - 6 Years	163	10.9	61.7
7 - 10 Years	176	11.7	73.4
11 - 15 Years	123	8.2	81.6
16 - 20 Years	89	5.9	87.5
More Than 20 Years	176	11.7	99.3
Missing Response	11	0.7	100.0
Total Responses	1502	100.0	

Respondents' Tenure (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less Than 1 Year	70	5.7	5.7
1 - 2 Years	223	18.3	24.0
3 - 4 Years	270	22.1	46.1
5 - 6 Years	137	11.2	57.3
7 - 10 Years	183	15.0	72.3
11 - 15 Years	119	9.7	82.1
16 - 20 Years	59	4.8	86.9
More Than 20 Years	147	12.0	98.9
Missing Response	13	1.1	100.0
Total Responses	1221	100.0	

Respondents' Tenure (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
Less Than 1 Year	101	17.9	17.9
1 - 2 Years	125	22.1	40.0
3 - 4 Years	64	11.3	51.3
5 - 6 Years	56	9.9	61.2
7 - 10 Years	70	12.4	73.6
11 - 15 Years	50	8.8	82.5
16 - 20 Years	33	5.8	88.3
More Than 20 Years	65	11.5	99.8
Missing Response	1	0.2	100.0
Total Responses	565	100.0	

Respondents' Employment Category (Survey 1)

Category	Frequency		
	Absolute	Percentage	Cumulative
Officer	11	0.7	0.7
Enlisted	7	0.5	1.2
Civilian (GS)	1436	95.6	96.8
Civilian (WG)	14	0.9	97.7
Non-appropriated Fund	3	0.2	97.9
Other	22	1.5	99.4
Missing Response	9	0.6	100.0
Total	1502	100.0	.

Respondents' Employment Category (Survey 2)

Category	Frequency		
	Absolute	Percentage	Cumulative
Officer	13	1.1	1.1
Enlisted	5	0.4	1.5
Civilian (GS)	1147	93.9	95.4
Civilian (WG)	18	1.5	96.9
Non-appropriated Fund	9	0.7	97.6
Other	19	1.6	99.2
Missing Response	10	0.8	100.0
Total	1221	100.0	

Respondents' Employment Category (Longitudinal Sample)

Category	Frequency		
	Absolute	Percentage	Cumulative
Officer	2	0.4	0.4
Enlisted	2	0.4	0.7
Civilian (GS)	548	97.0	97.7
Civilian (WG)	2	0.4	98.1
Non-appropriated Fund	2	0.4	98.4
Other	7	1.2	99.6
Missing Response	2	0.4	100.0
Total	565	100.0	

Appendix B: <u>Items And Instructions Excerpted</u>
<u>From Attitude Survey</u>

<u>BACKGROUND INFORMATION</u>

This section of the survey contains several items dealing
with personal characteristics. This information will be used
to obtain a picture of the background of the "typical
employee."

1. Your age is:

    1. Less than 20
    2. 20 to 25
    3. 26 to 30
    4. 31 to 40
    5. 41 to 50
    6. 51 to 60
    7. More than 60

2. Your highest educational level obtained was:

    1. Non high school graduate
    2. High school graduate or GED
    3. Some college work
    4. Associate degree
    5. Bachelor's Degree
    6. Some graduate work
    7. Master's degree
    8. Doctoral degree

3. Your sex is:

    1. Male
    2. Female

4. Length of time in this organization is:

    1. Less than 1 year
    2. 1-2 years
    3. 3-4 years
    4. 5-6 years
    5. 7-10 years
    6. 11-15 years
    7. 16-20 years
    8. More than 20 years

5. How many people do you directly supervise (i.e., those for which you write performance reports)?

    1. None
    2. 1 to 2
    3. 3 to 5
    4. 6 to 8
    5. 9 to 12
    6. 13 to 20
    7. 21 or more

6. You are a (an):

    1. Officer
    2. Enlisted
    3. Civilian (GS)
    4. Civilian (WG)
    5. Non-appropriated Fund (NAF employee)
    6. Other

7. Your grade level is:

    1. 1-2
    2. 3-4
    3. 5-6
    4. 7-8
    5. 9-10
    6. 11-12
    7. 13-15
    8. Senior Executive Service

PERFORMANCE OBSTACLES AND CONSTRAINTS

Instructions: The next four items represent obstacles and constraints that you may encounter in your work which may hamper your performance. For example, one salesperson might exceed the performance of another simply because he or she was lucky enough to get a lucrative territory. For the unlucky salesperson the less desirable territory is an "obstacle" for him or her to overcome. Performance obstacles are often factors "beyond one's control" that inhibit (or enhance) maximum performance. Use the rating scale below to show how often a given type of obstacle poses a problem for you.

    7 = Always
    6 = Very often
    5 = Often
    4 = Sometimes
    3 = Rarely
    2 = Very rarely
    1 = Never

8. Job Induced Constraints - [Definition: Factors in the make-up of the job itself (e.g., assembly line paced work) that determines levels of performance].

9. Interpersonal or Social Obstacles - [Definition: Represents the quality of interpersonal relationships you depend on (e.g., communication climate, cooperation) among individuals who interact with you in the course of your work].

10. Environmental Obstacles - [Definition: Factors in the physical job environment (e.g., excessive noise or heat) and in the geographical locale of the work (e.g., sales potential) that effect your job performance].

11. Administrative or Policy Constraints - [Definition: Rules, regulations, and other requirements imposed upon you by the organization or by governmental agencies that hamper your performance].

SUPERVISOR'S ASSESSMENT OF YOUR PERFORMANCE

The following statements deal with feedback you receive from your supervisor concerning your performance. Your frame of reference should be your supervisor's evaluation of your performance in terms of formal feedback (i.e., periodic, written performance appraisals) and informal feedback (i.e., verbal communication on a day-to-day basis). Please think carefully about his/her evaluations of you over the past six months or so.

Based upon the feedback you have received from your supervisor, use the rating scale below to indicate how your job performance would compare with other employees doing similar work.

        1 = Far worse
        2 = Much worse
        3 = Slightly worse
        4 = About average
        5 = Slightly better
        6 = Much better
        7 = Far better

12. Compared with other employees doing similar work, your supervisor considers the quantity of the work you produce to be:

13. Compared with other employees doing similar work, your supervisor considers the quality of the work you produce to be:

14. Compared with other employees performing similar work, your supervisor believes the efficiency of your use of available resources (money, materials, personnel) in producing a work product is:

15. Compared with other employees performing similar work, your supervisor considers your ability in anticipating problems and either preventing or minimizing their effects to be:

16. Compared with other employees performing similar work, your supervisor believes your adaptability/flexibility in handling high-priority work (e.g., "crash projects" and sudden schedule changes) is:

EMPLOYMENT INTENTIONS

Use the rating scale given below to indicate your plans to
either continue in Federal Government service or seek
employment outside of the Federal Government.

17. Within the coming year, if I have my own way:

     1 = I definitely intend to remain in Federal Service.
     2 = I probably will remain in Federal Service.
     3 = I have not decided whether I will remain in Federal
         Service.
     4 = I probably will not remain in Federal Service.
     5 = I definitely intend to leave Federal Service.

WORK ROLE ATTITUDES

This section of the questionnaire contains a number of
statements that relate to feelings about your work group,
the demands of your job, and the supervision you receive.
Use the following rating scale to indicate the extent to
which you agree or disagree with the statements shown below.

     1 = Strongly disagree
     2 = Moderately disagree
     3 = Slightly disagree
     4 = Neither agree nor disagree
     5 = Slightly agree
     6 = Moderately agree
     7 = Strongly agree

18. Within my work-group the people most affected by
     decisions frequently participate in making the
     decisions.

19. In my work-group there is a great deal of opportunity to
     be involved in resolving problems which affect the group

20. I am allowed to participate in decisions regarding my
     job.

21. I am allowed a significant degree of influence in
     decisions regarding my work.

22. My supervisor usually asks for my opinions and thoughts
     in decisions affecting my work.

```
1 = Strongly disagree
2 = Moderately disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Moderately agree
7 = Strongly agree
```

23. My organization provides all the necessary information for me to do my job effectively.

24. My work group is usually aware of important events and situations.

25. The people I work with make my job easier by sharing their ideas and opinions with me.

26. People in my work group are never afraid to speak their minds about issues and problems that affect them.

JOB FEEDBACK

Use the rating scale below to indicate how you feel about the following two questions.

```
1 = Very little
2 = Little
3 = A moderate amount
4 = Much
5 = Very much
```

27. To what extent do you find out how well you are doing on the job as you are working?

28. To what extent do you receive information from your superior on your job performance.

Use the same rating scale to indicate how much job feedback is present in your job.

29. The feedback from my supervisor on how well I am doing.

30. The opportunity to find out how well I am doing in my job.

31. The feeling that I know whether I am performing my job well or poorly.

GOAL AGREEMENT

1 = Not at all
2 = To a very little extent
3 = To a little extent
4 = To a moderate extent
5 = To a fairly large extent
6 = To a great extent
7 = To a very great extent

32. To what extent are your organization's goals compatible with your own personal goals?

JOB SATISFACTION

How satisfied are you in your present job? Use the following rating scales to indicate your satisfaction.

1 - means you are very dissatisfied with this aspect of your job
2 - means you are dissatisfied with this aspect
3 - means you can't decide if you are satisfied or not with this aspect of your job
4 - means you are satisfied with this aspect
5 - means you are very satisfied with this aspect of your job

33. Being able to keep busy all the time

34. The chance to work alone on the job

35. The chance to do different things from time to time

36. The chance to be "somebody" in the community

37. The way my boss handles his or her people

38. The competence of my supervisor in making decisions

39. Being able to do things that didn't go against my conscience

40. The way my job provides for steady employment

41. The chance to do things for other people

42. The chance to tell people what to do

43. The chance to do something that makes use of my abilities

1 - means you are <u>very dissatisfied</u> with this aspect of your job
2 - means you are <u>dissatisfied</u> with this aspect
3 - means you <u>can't decide</u> if you are satisfied or not with this aspect of your job
4 - means you are <u>satisfied</u> with this aspect
5 - means you are <u>very satisfied</u> with this aspect of your job

44. The way company policies are put into practice

45. My pay and the amount of work I do

46. The chances for advancement on the job

47. The freedom to use my own judgment

48. The chance to try my own methods of doing the job

49. The praise I get for doing a good job

50. The feeling of accomplishment I got from the job

SUPERVISION

DIRECTIONS:
a. READ each item carefully.
b. THINK about how frequently your supervisor engages in the behavior described by the item.
c. DECIDE whether he or she (1) always, (2) often, (3) occasionally, (4) seldom or (5) never acts as described by the item.
d. RATE each item using the same rating scale:

1 - Always
2 - Often
3 - Occasionally
4 - Seldom
5 - Never

51. My supervisor lets group members know what is expected of them.

52. My supervisor is friendly and approachable.

53. My supervisor encourages the use of uniform procedures.

54. My supervisor does little things to make it pleasant to be a member of the group.

1 - Always
2 - Often
3 - Occasionally
4 - Seldom
5 - Never

55. My supervisor tries out his or her ideas in the group.

56. My supervisor puts suggestions made by the group into operation.

57. My supervisor makes his or her attitudes clear to the group.

58. My supervisor treats all group members as his or her equals.

59. My supervisor decides what shall be done and how it shall be done.

60. My supervisor gives advance notice of changes.

61. My supervisor assigns group members to particular tasks.

62. My supervisor keeps to himself or herself.

63. My supervisor makes sure that his or her part in the group is understood by the group members.

64. My supervisor looks out for the personal welfare of group members.

65. My supervisor schedules the work to be done.

66. My supervisor is willing to make changes.

67. My supervisor maintains definite standards of performance.

68. My supervisor refuses to explain his or her actions.

69. My supervisor asks that group members follow standard rules and regulations.

70. My supervisor acts without consulting the group.

FUTURE WORK PLANS

The following items deal with the plans you have for your job and how you will do it. Please indicate how well each item describes the goals and intentions you have for yourself for the coming year. Use the following rating scale to show whether the statements given below reflect your own personal orientation to your job. As you read each item, ask yourself, "Is this a realistic goal for me?"

    1 = Definitely not among my work plans
    2 = Very unlike my own work plans
    3 = Somewhat unlike my own work plans
    4 = Can't decide
    5 = Somewhat similar to my own work plans
    6 = Very similar to my own work plans
    7 = Exactly the same as my own work plans

71. I think I will probably wind up being the top performer in my office.

72. I'm confident that I will be able to surpass the performance of 90% of my co-workers.

73. I intend to produce work that will stand out when it is compared with that of my co-workers.

74. I want to receive the recognition from the people I work with that goes along with exceptional performance.

75. I will not be satisfied with anything less than superior performance.

76. When it comes to doing my job, I will strive to do the very best possible.

77. I will outperform most everyone else doing the same type of work.

78. Compared to other people I work with, I plan to work hard and be among the top 10% in my office or department.

79. I want the amount of work I do to be similar to what others in my office do.

80. The quality of my work will deserve special recognition from my supervisor.

81. I will avoid putting unnecessary pressure on myself by trying to accomplish too much in my job.

```
1 = Definitely not among my work plans
2 = Very unlike my own work plans
3 = Somewhat unlike my own work plans
4 = Can't decide
5 = Somewhat similar to my own work plans
6 = Very similar to my own work plans
7 = Exactly the same as my own work plans
```

82. I won't show off by trying to outdo the people I work with.

83. My competitive nature will lead me to strive for excellence in the job I do.

FEATURES OF YOUR JOB

Listed below are a number of items which may or may not describe your present situation at DISC. In this section we want to know about your job and not about your attitudes toward your job or the tasks you perform. Using the scale below rate how accurately each statement describes your present job situation at DISC. If a statement does not apply mark response choice "6" on your answer sheet.

```
1 = Not at all accurate      6 = Does not apply to my job
2 = Somewhat accurate
3 = Fairly accurate
4 = Very accurate
5 = Completely accurate
```

84. I often must work with and depend upon others who are not well trained.

85. I frequently do not have enough of the right tools and/or equipment to do my job.

86. The information I need to do my job is frequently wrong when I receive it.

87. My organization does not provide me with the necessary materials, supplies, and/ or parts when I need them.

88. My work doesn't get done because my schedule often gets changed without enough advance notice.

89. I typically am not given the time I need to do my job.

90. My job is frequently made more difficult by bad weather conditions (too hot, too cold, too wet, etc.).

```
1 = Not at all accurate      6 = Does not apply to my job
2 = Somewhat accurate
3 = Fairly accurate
4 = Very accurate
5 = Completely accurate
```

91. I often cannot finish my job on time because of "red tape."

92. The lack of qualified people in my unit typically makes it difficult for me to get my job done.

93. I often cannot obtain the forms I need too get my job done.

94. There are frequent delays in getting the transportation I need in order to do my job.

95. The cooperation I get from others is often so poor that it doesn't help me get my job done.

96. The inconsistent policies, procedures, and instructions I often receive make it difficult for me to get my job done.

97. I am not able to do my job well because I am not allowed to make those job decisions I can make best.

Appendix C: Measures Scoring Protocol

Multi-scale Measure	Items From Appendix B Used To Construct Measure
Performance Obstacles	8 through 11
Situational Constraints	84 through 97
Participation in Decision Making	18 through 22
Organizational Communication Climate	23 through 26
Job Feedback	27 through 31
Supervisory Consideration	52, 54, 56, 58, 60, 62, 64, 66, 68, 70
Supervisory Structure	51, 53, 55, 57, 59, 61, 63, 65, 67, 69
Performance	12 through 16
Career Expectations	71 through 83
Intrinsic Job Satisfaction	33, 34, 35, 36, 39, 40, 41, 42, 43, 47, 48, 50
Extrinsic Job Satisfaction	37, 38, 44, 45, 46, 49

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION	1b. RESTRICTIVE MARKINGS
UNCLASSIFIED	

2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION / AVAILABILITY OF REPORT
	Approved for public release;
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	distribution unlimited

4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
AFIT/GSM/LSR/88S-14	

6a. NAME OF PERFORMING ORGANIZATION	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
School of Systems and Logistics	AFIT/LSY	

6c. ADDRESS (City, State, and ZIP Code)	7b. ADDRESS (City, State, and ZIP Code)
Air Force Institute of Technology Wright-Patterson AFB OH 45433-6583	

8a. NAME OF FUNDING / SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)

See Box 19

12. PERSONAL AUTHOR(S)
Terry D. Kline, B.S., M.B.A., Capt, USAF

13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 1988 September	15. PAGE COUNT 132

16. SUPPLEMENTARY NOTATION

17.	COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Personnel Retention, Job Satisfaction, Civilian
05	09		Personnel, Department of Defense, Government
			Employees . Theses. JUS/E

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

Title: AN INVESTIGATION INTO THE PREDICTORS OF EMPLOYMENT
INTENTIONS FOR DEPARTMENT OF DEFENSE EMPLOYEES

Thesis Chairman: Robert P. Steel, PhD
Associate Professor of Organizational
Behavior and Management

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	UNCLASSIFIED

22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code)	22c. OFFICE SYMBOL
Robert P. Steel	513-255-2820	AFIT/LSR

DD Form 1473, JUN 86 — Previous editions are obsolete. — SECURITY CLASSIFICATION OF THIS PAGE

The United States Department of Defense has at least three reasons to be interested in retaining quality personnel. First, employee turnover results in increased costs associated with hiring and training new personnel. Second, the government must continue to compete with the private sector for quality people. Finally, the Department of Defense will be competing for a declining number of people entering the work-force in the next decade as a result of the declining birth rate. In order to hold costs down and remain competitive with the private sector, the Department of Defense needs to thoroughly understand employment turnover.

The objectives of this research were to identify the predictors of employment turnover and to quantify each predictor's contribution to the overall employment intentions. Additionally, a turnover model was tested that proposed using an employee's job satisfaction and organizational commitment as intervening variables between an employee's intention to quit and other variables related to the employee's individual and organizational characteristics.

This study's sample was obtained from two survey questionnaires administered to employees of a Defense Logistics Agency of the Department of Defense. The two samples of 1502 and 1221 respondents were used to test eight hypotheses testing the applicability of the proposed turnover model across the cross-sectional samples and across a longitudinal sample of 565 responses extracted from the two surveys.

The results found several significant predictors of an employee's intent to quit including intrinsic job satisfaction, organizational commitment, performance obstacles, career expectations, performance, situational constraints, extrinsic job satisfaction, and sex. Overall, the proposed turnover model was able to predict up to 18.4% of the total variance in an employee's intent to quit.

The results of this study may prove to be useful for the Department of Defense in designing potential employee retention programs.

Approved for public release IAW AFR 190-1.

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